



Sequence Listing

<110> Ashkenazi, Avi J.
Frantz, Gretchen
Goddard, Audrey
Gonzalez, Lino
Gurney, Austin L.
Polakis, Paul
Polson, Andrew
Wood, William
Wu, Thomas D.
Zhang, Zemin

<120> COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND
TREATMENT OF TUMOR

<130> P5032R1-US

<140> US 10/712,892

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Glu	Asp	Gly	Phe	Ile	Lys	Thr	Thr	Lys	Pro	Leu	Asp	Arg	Glu	Glu	440	445	450
Thr	Ala	Trp	Leu	Asn	Ile	Thr	Val	Phe	Ala	Ala	Glu	Ile	His	Asn	455	460	465
Arg	His	Gln	Glu	Ala	Gln	Val	Pro	Val	Ala	Ile	Arg	Val	Leu	Asp			

470					475					480				
Val	Asn	Asp	Asn	Ala	Pro	Lys	Phe	Ala	Ala	Pro	Tyr	Glu	Gly	Phe
				485					490					495
Ile	Cys	Glu	Ser	Asp	Gln	Thr	Lys	Pro	Leu	Ser	Asn	Gln	Pro	Ile
				500					505					510
Val	Thr	Ile	Ser	Ala	Asp	Asp	Lys	Asp	Asp	Thr	Ala	Asn	Gly	Pro
				515					520					525
Arg	Phe	Ile	Phe	Ser	Leu	Pro	Pro	Glu	Ile	Ile	His	Asn	Pro	Asn
				530					535					540
Phe	Thr	Val	Arg	Asp	Asn	Arg	Asp	Asn	Thr	Ala	Gly	Val	Tyr	Ala
				545					550					555
Arg	Arg	Gly	Gly	Phe	Ser	Arg	Gln	Lys	Gln	Asp	Leu	Tyr	Leu	Leu
				560					565					570
Pro	Ile	Val	Ile	Ser	Asp	Gly	Gly	Ile	Pro	Pro	Met	Ser	Ser	Thr
				575					580					585
Asn	Thr	Leu	Thr	Ile	Lys	Val	Cys	Gly	Cys	Asp	Val	Asn	Gly	Ala
				590					595					600
Leu	Leu	Ser	Cys	Asn	Ala	Glu	Ala	Tyr	Ile	Leu	Asn	Ala	Gly	Leu
				605					610					615
Ser	Thr	Gly	Ala	Leu	Ile	Ala	Ile	Leu	Ala	Cys	Ile	Val	Ile	Leu
				620					625					630
Leu	Val	Ile	Val	Val	Leu	Phe	Val	Thr	Leu	Arg	Arg	Gln	Lys	Lys
				635					640					645
Glu	Pro	Leu	Ile	Val	Phe	Glu	Glu	Glu	Asp	Val	Arg	Glu	Asn	Ile
				650					655					660
Ile	Thr	Tyr	Asp	Asp	Glu	Gly	Gly	Gly	Glu	Glu	Asp	Thr	Glu	Ala
				665					670					675
Phe	Asp	Ile	Ala	Thr	Leu	Gln	Asn	Pro	Asp	Gly	Ile	Asn	Gly	Phe
				680					685					690
Ile	Pro	Arg	Lys	Asp	Ile	Lys	Pro	Glu	Tyr	Gln	Tyr	Met	Pro	Arg
				695					700					705
Pro	Gly	Leu	Arg	Pro	Ala	Pro	Asn	Ser	Val	Asp	Val	Asp	Asp	Phe
				710					715					720
Ile	Asn	Thr	Arg	Ile	Gln	Glu	Ala	Asp	Asn	Asp	Pro	Thr	Ala	Pro
				725					730					735
Pro	Tyr	Asp	Ser	Ile	Gln	Ile	Tyr	Gly	Tyr	Glu	Gly	Arg	Gly	Ser
				740					745					750
Val	Ala	Gly	Ser	Leu	Ser	Ser	Leu	Glu	Ser	Ala	Thr	Thr	Asp	Ser
				755					760					765

Asp Leu Asp Tyr Asp Tyr Leu Gln Asn Trp Gly Pro Arg Phe Lys
 770 775 780

Lys Leu Ala Asp Leu Tyr Gly Ser Lys Asp Thr Phe Asp Asp Asp
 785 790 795

Ser

<210> 23

<211> 215

<212> PRT

<213> Homo sapiens

<400> 23

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Leu Gly
 1 5 10 15

Ile Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr
 20 25 30

Thr Ser Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu
 35 40 45

Lys Cys Thr Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr
 50 55 60

Val Thr Trp Asn Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe
 65 70 75

Val Phe Tyr Tyr His Ile Asp Pro Phe Gln Pro Met Ser Gly Arg
 80 85 90

Phe Lys Asp Arg Val Ser Trp Asp Gly Asn Pro Glu Arg Tyr Asp
 95 100 105

Ala Ser Ile Leu Leu Trp Lys Leu Gln Phe Asp Asp Asn Gly Thr
 110 115 120

Tyr Thr Cys Gln Val Lys Asn Pro Pro Asp Val Asp Gly Val Ile
 125 130 135

Gly Glu Ile Arg Leu Ser Val Val His Thr Val Arg Phe Ser Glu
 140 145 150

Ile His Phe Leu Ala Leu Ala Ile Gly Ser Ala Cys Ala Leu Met
 155 160 165

Ile Ile Ile Val Ile Val Val Val Leu Phe Gln His Tyr Arg Lys
 170 175 180

Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu Ile Lys Ser
 185 190 195

Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser Val Tyr
 200 205 210

Leu Glu Asp Thr Asp

<210> 24
 <211> 796
 <212> PRT
 <213> Homo sapiens

<400> 24

Met	Lys	Glu	Asn	Tyr	Cys	Leu	Gln	Ala	Ala	Leu	Val	Cys	Leu	Gly	1	5	10	15
Met	Leu	Cys	His	Ser	His	Ala	Phe	Ala	Pro	Glu	Arg	Arg	Gly	His	20	25	30	
Leu	Arg	Pro	Ser	Phe	His	Gly	His	His	Glu	Lys	Gly	Lys	Glu	Gly	35	40	45	
Gln	Val	Leu	Gln	Arg	Ser	Lys	Arg	Gly	Trp	Val	Trp	Asn	Gln	Phe	50	55	60	
Phe	Val	Ile	Glu	Glu	Tyr	Thr	Gly	Pro	Asp	Pro	Val	Leu	Val	Gly	65	70	75	
Arg	Leu	His	Ser	Asp	Ile	Asp	Ser	Gly	Asp	Gly	Asn	Ile	Lys	Tyr	80	85	90	
Ile	Leu	Ser	Gly	Glu	Gly	Ala	Gly	Thr	Ile	Phe	Val	Ile	Asp	Asp	95	100	105	
Lys	Ser	Gly	Asn	Ile	His	Ala	Thr	Lys	Thr	Leu	Asp	Arg	Glu	Glu	110	115	120	
Arg	Ala	Gln	Tyr	Thr	Leu	Met	Ala	Gln	Ala	Val	Asp	Arg	Asp	Thr	125	130	135	
Asn	Arg	Pro	Leu	Glu	Pro	Pro	Ser	Glu	Phe	Ile	Val	Lys	Val	Gln	140	145	150	
Asp	Ile	Asn	Asp	Asn	Pro	Pro	Glu	Phe	Leu	His	Glu	Thr	Tyr	His	155	160	165	
Ala	Asn	Val	Pro	Glu	Arg	Ser	Asn	Val	Gly	Thr	Ser	Val	Ile	Gln	170	175	180	
Val	Thr	Ala	Ser	Asp	Ala	Asp	Asp	Pro	Thr	Tyr	Gly	Asn	Ser	Ala	185	190	195	
Lys	Leu	Val	Tyr	Ser	Ile	Leu	Glu	Gly	Gln	Pro	Tyr	Phe	Ser	Val	200	205	210	
Glu	Ala	Gln	Thr	Gly	Ile	Ile	Arg	Thr	Ala	Leu	Pro	Asn	Met	Asp	215	220	225	
Arg	Glu	Ala	Lys	Glu	Glu	Tyr	His	Val	Val	Ile	Gln	Ala	Lys	Asp	230	235	240	
Met	Gly	Gly	His	Met	Gly	Gly	Leu	Ser	Gly	Thr	Thr	Lys	Val	Thr	245	250	255	

Ile	Thr	Leu	Thr	Asp	Val	Asn	Asp	Asn	Pro	Pro	Lys	Phe	Pro	Gln	260	265	270
Arg	Leu	Tyr	Gln	Met	Ser	Val	Ser	Glu	Ala	Ala	Val	Pro	Gly	Glu	275	280	285
Glu	Val	Gly	Arg	Val	Lys	Ala	Lys	Asp	Pro	Asp	Ile	Gly	Glu	Asn	290	295	300
Gly	Leu	Val	Thr	Tyr	Asn	Ile	Val	Asp	Gly	Asp	Gly	Met	Glu	Ser	305	310	315
Phe	Glu	Ile	Thr	Thr	Asp	Tyr	Glu	Thr	Gln	Glu	Gly	Val	Ile	Lys	320	325	330
Leu	Lys	Lys	Pro	Val	Asp	Phe	Glu	Thr	Glu	Arg	Ala	Tyr	Ser	Leu	335	340	345
Lys	Val	Glu	Ala	Ala	Asn	Val	His	Ile	Asp	Pro	Lys	Phe	Ile	Ser	350	355	360
Asn	Gly	Pro	Phe	Lys	Asp	Thr	Val	Thr	Val	Lys	Ile	Ser	Val	Glu	365	370	375
Asp	Ala	Asp	Glu	Pro	Pro	Met	Phe	Leu	Ala	Pro	Ser	Tyr	Ile	His	380	385	390
Glu	Val	Gln	Glu	Asn	Ala	Ala	Ala	Gly	Thr	Val	Val	Gly	Arg	Val	395	400	405
His	Ala	Lys	Asp	Pro	Asp	Ala	Ala	Asn	Ser	Pro	Ile	Arg	Tyr	Ser	410	415	420
Ile	Asp	Arg	His	Thr	Asp	Leu	Asp	Arg	Phe	Phe	Thr	Ile	Asn	Pro	425	430	435
Glu	Asp	Gly	Phe	Ile	Lys	Thr	Thr	Lys	Pro	Leu	Asp	Arg	Glu	Glu	440	445	450
Thr	Ala	Trp	Leu	Asn	Ile	Thr	Val	Phe	Ala	Ala	Glu	Ile	His	Asn	455	460	465
Arg	His	Gln	Glu	Ala	Gln	Val	Pro	Val	Ala	Ile	Arg	Val	Leu	Asp	470	475	480
Val	Asn	Asp	Asn	Ala	Pro	Lys	Phe	Ala	Ala	Pro	Tyr	Glu	Gly	Phe	485	490	495
Ile	Cys	Glu	Ser	Asp	Gln	Thr	Lys	Pro	Leu	Ser	Asn	Gln	Pro	Ile	500	505	510
Val	Thr	Ile	Ser	Ala	Asp	Asp	Lys	Asp	Asp	Thr	Ala	Asn	Gly	Pro	515	520	525
Arg	Phe	Ile	Phe	Ser	Leu	Pro	Pro	Glu	Ile	Ile	His	Asn	Pro	Asn	530	535	540
Phe	Thr	Val	Arg	Asp	Asn	Arg	Asp	Asn	Thr	Ala	Gly	Val	Tyr	Ala			

				545						550					555
Arg	Arg	Gly	Gly	Phe	Ser	Arg	Gln	Lys	Gln	Asp	Leu	Tyr	Leu	Leu	
				560					565					570	
Pro	Ile	Val	Ile	Ser	Asp	Gly	Gly	Ile	Pro	Pro	Met	Ser	Ser	Thr	
				575					580					585	
Asn	Thr	Leu	Thr	Ile	Lys	Val	Cys	Gly	Cys	Asp	Val	Asn	Gly	Ala	
				590					595					600	
Leu	Leu	Ser	Cys	Asn	Ala	Glu	Ala	Tyr	Ile	Leu	Asn	Ala	Gly	Leu	
				605					610					615	
Ser	Thr	Gly	Ala	Leu	Ile	Ala	Ile	Leu	Ala	Cys	Ile	Val	Ile	Leu	
				620					625					630	
Leu	Val	Ile	Val	Val	Leu	Phe	Val	Thr	Leu	Arg	Arg	Gln	Lys	Lys	
				635					640					645	
Glu	Pro	Leu	Ile	Val	Phe	Glu	Glu	Glu	Asp	Val	Arg	Glu	Asn	Ile	
				650					655					660	
Ile	Thr	Tyr	Asp	Asp	Glu	Gly	Gly	Gly	Glu	Glu	Asp	Thr	Glu	Ala	
				665					670					675	
Phe	Asp	Ile	Ala	Thr	Leu	Gln	Asn	Pro	Asp	Gly	Ile	Asn	Gly	Phe	
				680					685					690	
Ile	Pro	Arg	Lys	Asp	Ile	Lys	Pro	Glu	Tyr	Gln	Tyr	Met	Pro	Arg	
				695					700					705	
Pro	Gly	Leu	Arg	Pro	Ala	Pro	Asn	Ser	Val	Asp	Val	Asp	Asp	Phe	
				710					715					720	
Ile	Asn	Thr	Arg	Ile	Gln	Glu	Ala	Asp	Asn	Asp	Pro	Thr	Ala	Pro	
				725					730					735	
Pro	Tyr	Asp	Ser	Ile	Gln	Ile	Tyr	Gly	Tyr	Glu	Gly	Arg	Gly	Ser	
				740					745					750	
Val	Ala	Gly	Ser	Leu	Ser	Ser	Leu	Glu	Ser	Ala	Thr	Thr	Asp	Ser	
				755					760					765	
Asp	Leu	Asp	Tyr	Asp	Tyr	Leu	Gln	Asn	Trp	Gly	Pro	Arg	Phe	Lys	
				770					775					780	
Lys	Leu	Ala	Asp	Leu	Tyr	Gly	Ser	Lys	Asp	Thr	Phe	Asp	Asp	Asp	
				785					790					795	

Ser

<210> 25
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 25

Met	Ala	Thr	Ala	Ala	Gly	Ala	Thr	Tyr	Phe	Gln	Arg	Gly	Ser	Leu
1				5					10					15
Phe	Trp	Phe	Thr	Val	Ile	Thr	Leu	Ser	Phe	Gly	Tyr	Tyr	Thr	Trp
				20					25					30
Val	Val	Phe	Trp	Pro	Gln	Ser	Ile	Pro	Tyr	Gln	Asn	Leu	Gly	Pro
				35					40					45
Leu	Gly	Pro	Phe	Thr	Gln	Tyr	Leu	Val	Asp	His	His	His	Thr	Leu
				50					55					60
Leu	Cys	Asn	Gly	Tyr	Trp	Leu	Ala	Trp	Leu	Ile	His	Val	Gly	Glu
				65					70					75
Ser	Leu	Tyr	Ala	Ile	Ala	Leu	Cys	Lys	His	Lys	Gly	Ile	Thr	Ser
				80					85					90
Gly	Arg	Ala	Gln	Leu	Leu	Trp	Phe	Leu	Gln	Thr	Phe	Phe	Phe	Gly
				95					100					105
Ile	Ala	Ser	Leu	Thr	Ile	Leu	Ile	Ala	Tyr	Lys	Arg	Lys	Arg	Gln
				110					115					120

Lys Gln Thr

<210> 26

<211> 257

<212> PRT

<213> Homo sapiens

<400> 26

Met	Ala	Ser	Lys	Ile	Gly	Ser	Arg	Arg	Trp	Met	Leu	Gln	Leu	Ile
1				5					10					15
Met	Gln	Leu	Gly	Ser	Val	Leu	Leu	Thr	Arg	Cys	Pro	Phe	Trp	Gly
				20					25					30
Cys	Phe	Ser	Gln	Leu	Met	Leu	Tyr	Ala	Glu	Arg	Ala	Glu	Ala	Arg
				35					40					45
Arg	Lys	Pro	Asp	Ile	Pro	Val	Pro	Tyr	Leu	Tyr	Phe	Asp	Met	Gly
				50					55					60
Ala	Ala	Val	Leu	Cys	Ala	Ser	Phe	Met	Ser	Phe	Gly	Val	Lys	Arg
				65					70					75
Arg	Trp	Phe	Ala	Leu	Gly	Ala	Ala	Leu	Gln	Leu	Ala	Ile	Ser	Thr
				80					85					90
Tyr	Ala	Ala	Tyr	Ile	Gly	Gly	Tyr	Val	His	Tyr	Gly	Asp	Trp	Leu
				95					100					105
Lys	Val	Arg	Met	Tyr	Ser	Arg	Thr	Val	Ala	Ile	Ile	Gly	Gly	Phe
				110					115					120

Leu	Val	Leu	Ala	Ser	Gly	Ala	Gly	Glu	Leu	Tyr	Arg	Arg	Lys	Pro
				125					130					135
Arg	Ser	Arg	Ser	Leu	Gln	Ser	Thr	Gly	Gln	Val	Phe	Leu	Gly	Ile
				140					145					150
Tyr	Leu	Ile	Cys	Val	Ala	Tyr	Ser	Leu	Gln	His	Ser	Lys	Glu	Asp
				155					160					165
Arg	Leu	Ala	Tyr	Leu	Asn	His	Leu	Pro	Gly	Gly	Glu	Leu	Met	Ile
				170					175					180
Gln	Leu	Phe	Phe	Val	Leu	Tyr	Gly	Ile	Leu	Ala	Leu	Ala	Phe	Leu
				185					190					195
Ser	Gly	Tyr	Tyr	Val	Thr	Leu	Ala	Ala	Gln	Ile	Leu	Ala	Val	Leu
				200					205					210
Leu	Pro	Pro	Val	Met	Leu	Leu	Ile	Asp	Gly	Asn	Val	Ala	Tyr	Trp
				215					220					225
His	Asn	Thr	Arg	Arg	Val	Glu	Phe	Trp	Asn	Gln	Met	Lys	Leu	Leu
				230					235					240
Gly	Glu	Ser	Val	Gly	Ile	Phe	Gly	Thr	Ala	Val	Ile	Leu	Ala	Thr
				245					250					255

Asp Gly

<210> 27
 <211> 460
 <212> PRT
 <213> Homo sapiens

<220>
 <221> Unsure
 <222> 381
 <223> Unknown amino acid

<400> 27

Gly	Arg	Gly	Ser	Pro	Leu	Ala	Leu	Leu	Ile	Arg	Met	Lys	Thr	Leu
1				5					10					15
Leu	Phe	Gly	Val	Trp	Ala	Leu	Leu	Ala	Leu	Ile	Leu	Cys	Pro	Gly
				20					25					30
Val	Pro	Glu	Glu	Leu	Phe	Glu	Val	Ser	Ile	Trp	Pro	Ser	Gln	Ala
				35					40					45
Leu	Val	Glu	Phe	Gly	Gln	Ser	Leu	Val	Cys	Asn	Cys	Ser	Thr	Thr
				50					55					60
Cys	Pro	Asp	Pro	Gly	Pro	Ser	Gly	Ile	Glu	Thr	Phe	Leu	Lys	Lys
				65					70					75
Thr	Gln	Val	Asp	Lys	Gly	Pro	Gln	Trp	Lys	Glu	Phe	Leu	Leu	Glu
				80					85					90

Asp	Val	Thr	Glu	Asn	Ser	Ile	Leu	Gln	Cys	Phe	Phe	Ser	Cys	Ala		95	100	105
Gly	Ile	Gln	Lys	Asp	Thr	Ser	Leu	Gly	Ile	Thr	Val	Tyr	Gln	Pro		110	115	120
Pro	Glu	Gln	Val	Ile	Leu	Glu	Leu	Gln	Pro	Ala	Trp	Val	Ala	Val		125	130	135
Asp	Glu	Ala	Phe	Thr	Val	Lys	Cys	His	Val	Pro	Ser	Val	Ala	Pro		140	145	150
Leu	Glu	Ser	Leu	Thr	Leu	Ala	Leu	Leu	Gln	Gly	Asn	Gln	Glu	Leu		155	160	165
His	Arg	Lys	Asn	Phe	Thr	Ser	Leu	Ala	Val	Ala	Ser	Gln	Arg	Ala		170	175	180
Glu	Val	Ile	Ile	Ser	Val	Arg	Ala	Gln	Lys	Glu	Asn	Asp	Arg	Cys		185	190	195
Asn	Ser	Ser	Cys	His	Ala	Glu	Leu	Asp	Leu	Ser	Leu	Gln	Gly	Gly		200	205	210
Arg	Leu	Phe	Gln	Gly	Ser	Ser	Pro	Ile	Arg	Ile	Val	Arg	Ile	Phe		215	220	225
Glu	Phe	Ser	Gln	Ser	Pro	His	Ile	Trp	Val	Ser	Ser	Leu	Leu	Glu		230	235	240
Ala	Gly	Met	Ala	Glu	Thr	Val	Ser	Cys	Glu	Val	Ala	Arg	Val	Phe		245	250	255
Pro	Ala	Lys	Glu	Val	Met	Phe	His	Met	Phe	Leu	Glu	Asp	Gln	Glu		260	265	270
Leu	Ser	Ser	Ser	Leu	Ser	Trp	Glu	Gly	Asp	Thr	Ala	Trp	Ala	Asn		275	280	285
Ala	Thr	Ile	Arg	Thr	Met	Glu	Ala	Gly	Asp	Gln	Glu	Leu	Ser	Cys		290	295	300
Phe	Ala	Ser	Leu	Gly	Ala	Met	Glu	Gln	Lys	Thr	Arg	Lys	Leu	Val		305	310	315
His	Ser	Tyr	Ser	Phe	Pro	Pro	Pro	Ile	Leu	Glu	Leu	Lys	Glu	Ser		320	325	330
Tyr	Pro	Leu	Ala	Gly	Thr	Asp	Ile	Asn	Val	Thr	Cys	Ser	Gly	His		335	340	345
Val	Leu	Thr	Ser	Pro	Ser	Pro	Thr	Leu	Arg	Leu	Gln	Gly	Ala	Pro		350	355	360
Asp	Leu	Pro	Ala	Gly	Glu	Pro	Ala	Trp	Leu	Leu	Leu	Thr	Ala	Arg		365	370	375
Glu	Glu	Asp	Asp	Gly	Xaa	Asn	Phe	Ser	Cys	Glu	Ala	Ser	Leu	Val				

	380		385		390
Val Gln Gly Gln Arg Leu Met Lys Thr Thr Val Ile Gln Leu His	395		400		405
Ile Leu Lys Pro Gln Leu Glu Glu Ser Ser Cys Pro Gly Lys Gln	410		415		420
Thr Trp Leu Glu Gly Met Glu His Thr Leu Ala Cys Val Pro Lys	425		430		435
Gly Asn Pro Ala Pro Ala Leu Val Cys Thr Trp Asn Gly Val Val	440		445		450
Phe Asp Leu Glu Val Pro Gln Lys Ala Thr	455		460		

<210> 28
 <211> 332
 <212> PRT
 <213> Homo sapiens

<400> 28
Met Leu Pro Arg Leu Leu Leu Leu Ile Cys Ala Pro Leu Cys Glu
1 5 10 15
Pro Ala Glu Leu Phe Leu Ile Ala Ser Pro Ser His Pro Thr Glu
20 25 30
Gly Ser Pro Val Thr Leu Thr Cys Lys Met Pro Phe Leu Gln Ser
35 40 45
Ser Asp Ala Gln Phe Gln Phe Cys Phe Phe Arg Asp Thr Arg Ala
50 55 60
Leu Gly Pro Gly Trp Ser Ser Ser Pro Lys Leu Gln Ile Ala Ala
65 70 75
Met Trp Lys Glu Asp Thr Gly Ser Tyr Trp Cys Glu Ala Gln Thr
80 85 90
Met Ala Ser Lys Val Leu Arg Ser Arg Arg Ser Gln Ile Asn Val
95 100 105
His Ile Pro Val Ser Arg Pro Ile Leu Met Leu Arg Ala Pro Arg
110 115 120
Ala Gln Ala Ala Val Glu Asp Val Leu Glu Leu His Cys Glu Ala
125 130 135
Leu Arg Gly Ser Pro Pro Ile Leu Tyr Trp Phe Tyr His Glu Asp
140 145 150
Ile Thr Leu Gly Ser Arg Ser Ala Pro Ser Gly Gly Gly Ala Ser
155 160 165
Phe Asn Leu Ser Leu Thr Glu Glu His Ser Gly Asn Tyr Ser Cys
170 175 180

Glu	Ala	Asn	Asn	Gly	Leu	Gly	Ala	Gln	Arg	Ser	Glu	Ala	Val	Thr	185	190	195
Leu	Asn	Phe	Thr	Val	Pro	Thr	Gly	Ala	Arg	Ser	Asn	His	Leu	Thr	200	205	210
Ser	Gly	Val	Ile	Glu	Gly	Leu	Leu	Ser	Thr	Leu	Gly	Pro	Ala	Thr	215	220	225
Val	Ala	Leu	Leu	Phe	Cys	Tyr	Gly	Leu	Lys	Arg	Lys	Ile	Gly	Arg	230	235	240
Arg	Ser	Ala	Arg	Asp	Pro	Leu	Arg	Ser	Leu	Pro	Ala	Leu	Pro	Gln	245	250	255
Glu	Phe	Thr	Tyr	Leu	Asn	Ser	Pro	Thr	Pro	Gly	Gln	Leu	Gln	Pro	260	265	270
Ile	Tyr	Glu	Asn	Val	Asn	Val	Val	Ser	Gly	Asp	Glu	Val	Tyr	Ser	275	280	285
Leu	Ala	Tyr	Tyr	Asn	Gln	Pro	Glu	Gln	Glu	Ser	Val	Ala	Ala	Glu	290	295	300
Thr	Leu	Gly	Thr	His	Met	Glu	Asp	Lys	Val	Ser	Leu	Asp	Ile	Tyr	305	310	315
Ser	Arg	Leu	Arg	Lys	Ala	Asn	Ile	Thr	Asp	Val	Asp	Tyr	Glu	Asp	320	325	330

Ala Met

<210> 29
 <211> 515
 <212> PRT
 <213> Homo sapiens

<400> 29

Met	Leu	Leu	Trp	Ala	Ser	Leu	Leu	Ala	Phe	Ala	Pro	Val	Cys	Gly	1	5	10	15
Gln	Ser	Ala	Ala	Ala	His	Lys	Pro	Val	Ile	Ser	Val	His	Pro	Pro	20	25	30	
Trp	Thr	Thr	Phe	Phe	Lys	Gly	Glu	Arg	Val	Thr	Leu	Thr	Cys	Asn	35	40	45	
Gly	Phe	Gln	Phe	Tyr	Ala	Thr	Glu	Lys	Thr	Thr	Trp	Tyr	His	Arg	50	55	60	
His	Tyr	Trp	Gly	Glu	Lys	Leu	Thr	Leu	Thr	Pro	Gly	Asn	Thr	Leu	65	70	75	
Glu	Val	Arg	Glu	Ser	Gly	Leu	Tyr	Arg	Cys	Gln	Ala	Arg	Gly	Ser	80	85	90	
Pro	Arg	Ser	Asn	Pro	Val	Arg	Leu	Leu	Phe	Ser	Ser	Asp	Ser	Leu				

	95		100		105
Ile Leu Gln Ala	Pro Tyr Ser Val Phe	Glu Gly Asp Thr Leu	Val		
	110		115		120
Leu Arg Cys His	Arg Arg Arg Lys Glu	Lys Leu Thr Ala Val	Lys		
	125		130		135
Tyr Thr Trp Asn	Gly Asn Ile Leu Ser	Ile Ser Asn Lys Ser	Trp		
	140		145		150
Asp Leu Leu Ile	Pro Gln Ala Ser Ser	Asn Asn Asn Gly Asn	Tyr		
	155		160		165
Arg Cys Ile Gly	Tyr Gly Asp Glu Asn	Asp Val Phe Arg Ser	Asn		
	170		175		180
Phe Lys Ile Ile	Lys Ile Gln Glu Leu	Phe Pro His Pro Glu	Leu		
	185		190		195
Lys Ala Thr Asp	Ser Gln Pro Thr Glu	Gly Asn Ser Val Asn	Leu		
	200		205		210
Ser Cys Glu Thr	Gln Leu Pro Pro Glu	Arg Ser Asp Thr Pro	Leu		
	215		220		225
His Phe Asn Phe	Phe Arg Asp Gly Glu	Val Ile Leu Ser Asp	Trp		
	230		235		240
Ser Thr Tyr Pro	Glu Leu Gln Leu Pro	Thr Val Trp Arg Glu	Asn		
	245		250		255
Ser Gly Ser Tyr	Trp Cys Gly Ala Glu	Thr Val Arg Gly Asn	Ile		
	260		265		270
His Lys His Ser	Pro Ser Leu Gln Ile	His Val Gln Arg Ile	Pro		
	275		280		285
Val Ser Gly Val	Leu Leu Glu Thr Gln	Pro Ser Gly Gly Gln	Ala		
	290		295		300
Val Glu Gly Glu	Met Leu Val Leu Val	Cys Ser Val Ala Glu	Gly		
	305		310		315
Thr Gly Asp Thr	Thr Phe Ser Trp His	Arg Glu Asp Met Gln	Glu		
	320		325		330
Ser Leu Gly Arg	Lys Thr Gln Arg Ser	Leu Arg Ala Glu Leu	Glu		
	335		340		345
Leu Pro Ala Ile	Arg Gln Ser His Ala	Gly Gly Tyr Tyr Cys	Thr		
	350		355		360
Ala Asp Asn Ser	Tyr Gly Pro Val Gln	Ser Met Val Leu Asn	Val		
	365		370		375
Thr Val Arg Glu	Thr Pro Gly Asn Arg	Asp Gly Leu Val Ala	Ala		
	380		385		390

Gly	Ala	Thr	Gly	Gly	Leu	Leu	Ser	Ala	Leu	Leu	Leu	Ala	Val	Ala	
				395					400					405	
Leu	Leu	Phe	His	Cys	Trp	Arg	Arg	Arg	Lys	Ser	Gly	Val	Gly	Phe	
				410					415					420	
Leu	Gly	Asp	Glu	Thr	Arg	Leu	Pro	Pro	Ala	Pro	Gly	Pro	Gly	Glu	
				425					430					435	
Ser	Ser	His	Ser	Ile	Cys	Pro	Ala	Gln	Val	Glu	Leu	Gln	Ser	Leu	
				440					445					450	
Tyr	Val	Asp	Val	His	Pro	Lys	Lys	Gly	Asp	Leu	Val	Tyr	Ser	Glu	
				455					460					465	
Ile	Gln	Thr	Thr	Gln	Leu	Gly	Glu	Glu	Glu	Glu	Ala	Asn	Thr	Ser	
				470					475					480	
Arg	Thr	Leu	Leu	Glu	Asp	Lys	Asp	Val	Ser	Val	Val	Tyr	Ser	Glu	
				485					490					495	
Val	Lys	Thr	Gln	His	Pro	Asp	Asn	Ser	Ala	Gly	Lys	Ile	Ser	Ser	
				500					505					510	
Lys	Asp	Glu	Glu	Ser											
				515											

<210> 30
 <211> 453
 <212> PRT
 <213> Homo sapiens

<400> 30

Met	Thr	Val	Ile	Arg	Phe	Phe	Pro	Ala	Ala	Ser	Ala	Thr	Lys	Arg	
1				5					10					15	
Val	Leu	Pro	Pro	Val	Leu	Arg	Val	Ser	Ser	Pro	Arg	Thr	Trp	Asn	
				20					25					30	
Pro	Asn	Val	Pro	Glu	Ser	Pro	Arg	Ile	Pro	Ala	Pro	Arg	Leu	Pro	
				35					40					45	
Lys	Arg	Met	Ser	Gly	Ala	Pro	Thr	Ala	Gly	Ala	Ala	Leu	Met	Leu	
				50					55					60	
Cys	Ala	Ala	Thr	Ala	Val	Leu	Leu	Ser	Ala	Gln	Gly	Gly	Pro	Val	
				65					70					75	
Gln	Ser	Lys	Ser	Pro	Arg	Phe	Ala	Ser	Trp	Asp	Glu	Met	Asn	Val	
				80					85					90	
Leu	Ala	His	Gly	Leu	Leu	Gln	Leu	Gly	Gln	Gly	Leu	Arg	Glu	His	
				95					100					105	
Ala	Glu	Arg	Thr	Arg	Ser	Gln	Leu	Ser	Ala	Leu	Glu	Arg	Arg	Leu	
				110					115					120	
Ser	Ala	Cys	Gly	Ser	Ala	Cys	Gln	Gly	Thr	Glu	Gly	Ser	Thr	Asp	

	125		130		135
Leu Pro Leu Ala	Pro Glu Ser Arg Val	Asp Pro Glu Val	Leu His		
	140	145	150		
Ser Leu Gln Thr	Gln Leu Lys Ala Gln	Asn Ser Arg Ile	Gln Gln		
	155	160	165		
Leu Phe His Lys	Val Ala Gln Gln Gln	Arg His Leu Glu	Lys Gln		
	170	175	180		
His Leu Arg Ile	Gln His Leu Gln Ser	Gln Phe Gly Leu	Leu Asp		
	185	190	195		
His Lys His Leu	Asp His Glu Val Ala	Lys Pro Ala Arg	Arg Lys		
	200	205	210		
Arg Leu Pro Glu	Met Ala Gln Pro Val	Asp Pro Ala His	Asn Val		
	215	220	225		
Ser Arg Leu His	Arg Leu Pro Arg Asp	Cys Gln Glu Leu	Phe Gln		
	230	235	240		
Val Gly Glu Arg	Gln Ser Gly Leu Phe	Glu Ile Gln Pro	Gln Gly		
	245	250	255		
Ser Pro Pro Phe	Leu Val Asn Cys Lys	Met Thr Ser Asp	Gly Gly		
	260	265	270		
Trp Thr Val Ile	Gln Arg Arg His Asp	Gly Ser Val Asp	Phe Asn		
	275	280	285		
Arg Pro Trp Glu	Ala Tyr Lys Ala Gly	Phe Gly Asp Pro	His Gly		
	290	295	300		
Glu Phe Trp Leu	Gly Leu Glu Lys Val	His Ser Ile Thr	Gly Asp		
	305	310	315		
Arg Asn Ser Arg	Leu Ala Val Gln Leu	Arg Asp Trp Asp	Gly Asn		
	320	325	330		
Ala Glu Leu Leu	Gln Phe Ser Val His	Leu Gly Gly Glu	Asp Thr		
	335	340	345		
Ala Tyr Ser Leu	Gln Leu Thr Ala Pro	Val Ala Gly Gln	Leu Gly		
	350	355	360		
Ala Thr Thr Val	Pro Pro Ser Gly Leu	Ser Val Pro Phe	Ser Thr		
	365	370	375		
Trp Asp Gln Asp	His Asp Leu Arg Arg	Asp Lys Asn Cys	Ala Lys		
	380	385	390		
Ser Leu Ser Gly	Gly Trp Trp Phe Gly	Thr Cys Ser His	Ser Asn		
	395	400	405		
Leu Asn Gly Gln	Tyr Phe Arg Ser Ile	Pro Gln Gln Arg	Gln Lys		
	410	415	420		

Leu Lys Lys Gly Ile Phe Trp Lys Thr Trp Arg Gly Arg Tyr Tyr
 425 430 435

Pro Leu Gln Ala Thr Thr Met Leu Ile Gln Pro Met Ala Ala Glu
 440 445 450

Ala Ala Ser

<210> 31
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 31
 Met Leu Leu Trp Val Ile Leu Leu Val Leu Ala Pro Val Ser Gly
 1 5 10 15
 Gln Phe Ala Arg Thr Pro Arg Pro Ile Ile Phe Leu Gln Pro Pro
 20 25 30
 Trp Thr Thr Val Phe Gln Gly Glu Arg Val Thr Leu Thr Cys Lys
 35 40 45
 Gly Phe Arg Phe Tyr Ser Pro Gln Lys Thr Lys Trp Tyr His Arg
 50 55 60
 Tyr Leu Gly Lys Glu Ile Leu Arg Glu Thr Pro Asp Asn Ile Leu
 65 70 75
 Glu Val Gln Glu Ser Gly Glu Tyr Arg Cys Gln Ala Gln Gly Ser
 80 85 90
 Pro Leu Ser Ser Pro Val His Leu Asp Phe Ser Ser Glu Met Gly
 95 100 105
 Phe Pro His Ala Ala Gln Ala Asn Val Glu Leu Leu Gly Ser Ser
 110 115 120
 Asp Leu Leu Thr

<210> 32
 <211> 1752
 <212> PRT
 <213> Homo sapiens

<400> 32
 Met Ala Gly Pro Arg Pro Ser Pro Trp Ala Arg Leu Leu Leu Ala
 1 5 10 15
 Ala Leu Ile Ser Val Ser Leu Ser Gly Thr Leu Ala Asn Arg Cys
 20 25 30
 Lys Lys Ala Pro Val Lys Ser Cys Thr Glu Cys Val Arg Val Asp
 35 40 45
 Lys Asp Cys Ala Tyr Cys Thr Asp Glu Met Phe Arg Asp Arg Arg

50										55					60				
Cys	Asn	Thr	Gln	Ala	Glu	Leu	Leu	Ala	Ala	Gly	Cys	Gln	Arg	Glu					
				65					70					75					
Ser	Ile	Val	Val	Met	Glu	Ser	Ser	Phe	Gln	Ile	Thr	Glu	Glu	Thr					
				80					85					90					
Gln	Ile	Asp	Thr	Thr	Leu	Arg	Arg	Ser	Gln	Met	Ser	Pro	Gln	Gly					
				95					100					105					
Leu	Arg	Val	Arg	Leu	Arg	Pro	Gly	Glu	Glu	Arg	His	Phe	Glu	Leu					
				110					115					120					
Glu	Val	Phe	Glu	Pro	Leu	Glu	Ser	Pro	Val	Asp	Leu	Tyr	Ile	Leu					
				125					130					135					
Met	Asp	Phe	Ser	Asn	Ser	Met	Ser	Asp	Asp	Leu	Asp	Asn	Leu	Lys					
				140					145					150					
Lys	Met	Gly	Gln	Asn	Leu	Ala	Arg	Val	Leu	Ser	Gln	Leu	Thr	Ser					
				155					160					165					
Asp	Tyr	Thr	Ile	Gly	Phe	Gly	Lys	Phe	Val	Asp	Lys	Val	Ser	Val					
				170					175					180					
Pro	Gln	Thr	Asp	Met	Arg	Pro	Glu	Lys	Leu	Lys	Glu	Pro	Trp	Pro					
				185					190					195					
Asn	Ser	Asp	Pro	Pro	Phe	Ser	Phe	Lys	Asn	Val	Ile	Ser	Leu	Thr					
				200					205					210					
Glu	Asp	Val	Asp	Glu	Phe	Arg	Asn	Lys	Leu	Gln	Gly	Glu	Arg	Ile					
				215					220					225					
Ser	Gly	Asn	Leu	Asp	Ala	Pro	Glu	Gly	Gly	Phe	Asp	Ala	Ile	Leu					
				230					235					240					
Gln	Thr	Ala	Val	Cys	Thr	Arg	Asp	Ile	Gly	Trp	Arg	Pro	Asp	Ser					
				245					250					255					
Thr	His	Leu	Leu	Val	Phe	Ser	Thr	Glu	Ser	Ala	Phe	His	Tyr	Glu					
				260					265					270					
Ala	Asp	Gly	Ala	Asn	Val	Leu	Ala	Gly	Ile	Met	Ser	Arg	Asn	Asp					
				275					280					285					
Glu	Arg	Cys	His	Leu	Asp	Thr	Thr	Gly	Thr	Tyr	Thr	Gln	Tyr	Arg					
				290					295					300					
Thr	Gln	Asp	Tyr	Pro	Ser	Val	Pro	Thr	Leu	Val	Arg	Leu	Leu	Ala					
				305					310					315					
Lys	His	Asn	Ile	Ile	Pro	Ile	Phe	Ala	Val	Thr	Asn	Tyr	Ser	Tyr					
				320					325					330					
Ser	Tyr	Tyr	Glu	Lys	Leu	His	Thr	Tyr	Phe	Pro	Val	Ser	Ser	Leu					
				335					340					345					

Gly Val Leu Gln Glu Asp Ser Ser Asn Ile Val Glu Leu Leu Glu	350	355	360
Glu Ala Phe Asn Arg Ile Arg Ser Asn Leu Asp Ile Arg Ala Leu	365	370	375
Asp Ser Pro Arg Gly Leu Arg Thr Glu Val Thr Ser Lys Met Phe	380	385	390
Gln Lys Thr Arg Thr Gly Ser Phe His Ile Arg Arg Gly Glu Val	395	400	405
Gly Ile Tyr Gln Val Gln Leu Arg Ala Leu Glu His Val Asp Gly	410	415	420
Thr His Val Cys Gln Leu Pro Glu Asp Gln Lys Gly Asn Ile His	425	430	435
Leu Lys Pro Ser Phe Ser Asp Gly Leu Lys Met Asp Ala Gly Ile	440	445	450
Ile Cys Asp Val Cys Thr Cys Glu Leu Gln Lys Glu Val Arg Ser	455	460	465
Ala Arg Cys Ser Phe Asn Gly Asp Phe Val Cys Gly Gln Cys Val	470	475	480
Cys Ser Glu Gly Trp Ser Gly Gln Thr Cys Asn Cys Ser Thr Gly	485	490	495
Ser Leu Ser Asp Ile Gln Pro Cys Leu Arg Glu Gly Glu Asp Lys	500	505	510
Pro Cys Ser Gly Arg Gly Glu Cys Gln Cys Gly His Cys Val Cys	515	520	525
Tyr Gly Glu Gly Arg Tyr Glu Gly Gln Phe Cys Glu Tyr Asp Asn	530	535	540
Phe Gln Cys Pro Arg Thr Ser Gly Phe Leu Cys Asn Asp Arg Gly	545	550	555
Arg Cys Ser Met Gly Gln Cys Val Cys Glu Pro Gly Trp Thr Gly	560	565	570
Pro Ser Cys Asp Cys Pro Leu Ser Asn Ala Thr Cys Ile Asp Ser	575	580	585
Asn Gly Gly Ile Cys Asn Gly Arg Gly His Cys Glu Cys Gly Arg	590	595	600
Cys His Cys His Gln Gln Ser Leu Tyr Thr Asp Thr Ile Cys Glu	605	610	615
Ile Asn Tyr Ser Ala Ile His Pro Gly Leu Cys Glu Asp Leu Arg	620	625	630
Ser Cys Val Gln Cys Gln Ala Trp Gly Thr Gly Glu Lys Lys Gly			

635	640	645
Arg Thr Cys Glu Glu Cys Asn Phe Lys	Val Lys Met Val Asp Glu	
650	655	660
Leu Lys Arg Ala Glu Glu Val Val Val	Arg Cys Ser Phe Arg Asp	
665	670	675
Glu Asp Asp Asp Cys Thr Tyr Ser Tyr	Thr Met Glu Gly Asp Gly	
680	685	690
Ala Pro Gly Pro Asn Ser Thr Val Leu	Val His Lys Lys Lys Asp	
695	700	705
Cys Pro Pro Gly Ser Phe Trp Trp Leu	Ile Pro Leu Leu Leu Leu	
710	715	720
Leu Leu Pro Leu Leu Ala Leu Leu Leu	Leu Leu Cys Trp Lys Tyr	
725	730	735
Cys Ala Cys Cys Lys Ala Cys Leu Ala	Leu Leu Pro Cys Cys Asn	
740	745	750
Arg Gly His Met Val Gly Phe Lys Glu	Asp His Tyr Met Leu Arg	
755	760	765
Glu Asn Leu Met Ala Ser Asp His Leu	Asp Thr Pro Met Leu Arg	
770	775	780
Ser Gly Asn Leu Lys Gly Arg Asp Val	Val Arg Trp Lys Val Thr	
785	790	795
Asn Asn Met Gln Arg Pro Gly Phe Ala	Thr His Ala Ala Ser Ile	
800	805	810
Asn Pro Thr Glu Leu Val Pro Tyr Gly	Leu Ser Leu Arg Leu Ala	
815	820	825
Arg Leu Cys Thr Glu Asn Leu Leu Lys	Pro Asp Thr Arg Glu Cys	
830	835	840
Ala Gln Leu Arg Gln Glu Val Glu Glu	Asn Leu Asn Glu Val Tyr	
845	850	855
Arg Gln Ile Ser Gly Val His Lys Leu	Gln Gln Thr Lys Phe Arg	
860	865	870
Gln Gln Pro Asn Ala Gly Lys Lys Gln	Asp His Thr Ile Val Asp	
875	880	885
Thr Val Leu Met Ala Pro Arg Ser Ala	Lys Pro Ala Leu Leu Lys	
890	895	900
Leu Thr Glu Lys Gln Val Glu Gln Arg	Ala Phe His Asp Leu Lys	
905	910	915
Val Ala Pro Gly Tyr Tyr Thr Leu Thr	Ala Asp Gln Asp Ala Arg	
920	925	930

Gly Met Val Glu Phe Gln Glu Gly Val Glu Leu Val Asp Val Arg	935	940	945
Val Pro Leu Phe Ile Arg Pro Glu Asp Asp Asp Glu Lys Gln Leu	950	955	960
Leu Val Glu Ala Ile Asp Val Pro Ala Gly Thr Ala Thr Leu Gly	965	970	975
Arg Arg Leu Val Asn Ile Thr Ile Ile Lys Glu Gln Ala Arg Asp	980	985	990
Val Val Ser Phe Glu Gln Pro Glu Phe Ser Val Ser Arg Gly Asp	995	1000	1005
Gln Val Ala Arg Ile Pro Val Ile Arg Arg Val Leu Asp Gly Gly	1010	1015	1020
Lys Ser Gln Val Ser Tyr Arg Thr Gln Asp Gly Thr Ala Gln Gly	1025	1030	1035
Asn Arg Asp Tyr Ile Pro Val Glu Gly Glu Leu Leu Phe Gln Pro	1040	1045	1050
Gly Glu Ala Trp Lys Glu Leu Gln Val Lys Leu Leu Glu Leu Gln	1055	1060	1065
Glu Val Asp Ser Leu Leu Arg Gly Arg Gln Val Arg Arg Phe His	1070	1075	1080
Val Gln Leu Ser Asn Pro Lys Phe Gly Ala His Leu Gly Gln Pro	1085	1090	1095
His Ser Thr Thr Ile Ile Ile Arg Asp Pro Asp Glu Leu Asp Arg	1100	1105	1110
Ser Phe Thr Ser Gln Met Leu Ser Ser Gln Pro Pro Pro His Gly	1115	1120	1125
Asp Leu Gly Ala Pro Gln Asn Pro Asn Ala Lys Ala Ala Gly Ser	1130	1135	1140
Arg Lys Ile His Phe Asn Trp Leu Pro Pro Ser Gly Lys Pro Met	1145	1150	1155
Gly Tyr Arg Val Lys Tyr Trp Ile Gln Gly Asp Ser Glu Ser Glu	1160	1165	1170
Ala His Leu Leu Asp Ser Lys Val Pro Ser Val Glu Leu Thr Asn	1175	1180	1185
Leu Tyr Pro Tyr Cys Asp Tyr Glu Met Lys Val Cys Ala Tyr Gly	1190	1195	1200
Ala Gln Gly Glu Gly Pro Tyr Ser Ser Leu Val Ser Cys Arg Thr	1205	1210	1215
His Gln Glu Val Pro Ser Glu Pro Gly Arg Leu Ala Phe Asn Val			

Val Ser Ser Thr Val Thr Gln Leu Ser Trp Ala Glu Pro Ala Glu	1220	1225	1230
1235	1240	1245	
Thr Asn Gly Glu Ile Thr Ala Tyr Glu Val Cys Tyr Gly Leu Val	1250	1255	1260
Asn Asp Asp Asn Arg Pro Ile Gly Pro Met Lys Lys Val Leu Val	1265	1270	1275
Asp Asn Pro Lys Asn Arg Met Leu Leu Ile Glu Asn Leu Arg Glu	1280	1285	1290
Ser Gln Pro Tyr Arg Tyr Thr Val Lys Ala Arg Asn Gly Ala Gly	1295	1300	1305
Trp Gly Pro Glu Arg Glu Ala Ile Ile Asn Leu Ala Thr Gln Pro	1310	1315	1320
Lys Arg Pro Met Ser Ile Pro Ile Ile Pro Asp Ile Pro Ile Val	1325	1330	1335
Asp Ala Gln Ser Gly Glu Asp Tyr Asp Ser Phe Leu Met Tyr Ser	1340	1345	1350
Asp Asp Val Leu Arg Ser Pro Ser Gly Ser Gln Arg Pro Ser Val	1355	1360	1365
Ser Asp Asp Thr Glu His Leu Val Asn Gly Arg Met Asp Phe Ala	1370	1375	1380
Phe Pro Gly Ser Thr Asn Ser Leu His Arg Met Thr Thr Thr Ser	1385	1390	1395
Ala Ala Ala Tyr Gly Thr His Leu Ser Pro His Val Pro His Arg	1400	1405	1410
Val Leu Ser Thr Ser Ser Thr Leu Thr Arg Asp Tyr Asn Ser Leu	1415	1420	1425
Thr Arg Ser Glu His Ser His Ser Thr Thr Leu Pro Arg Asp Tyr	1430	1435	1440
Ser Thr Leu Thr Ser Val Ser Ser His Asp Ser Arg Leu Thr Ala	1445	1450	1455
Gly Val Pro Asp Thr Pro Thr Arg Leu Val Phe Ser Ala Leu Gly	1460	1465	1470
Pro Thr Ser Leu Arg Val Ser Trp Gln Glu Pro Arg Cys Glu Arg	1475	1480	1485
Pro Leu Gln Gly Tyr Ser Val Glu Tyr Gln Leu Leu Asn Gly Gly	1490	1495	1500
Glu Leu His Arg Leu Asn Ile Pro Asn Pro Ala Gln Thr Ser Val	1505	1510	1515

Val	Val	Glu	Asp	Leu	Leu	Pro	Asn	His	Ser	Tyr	Val	Phe	Arg	Val	
				1520					1525					1530	
Arg	Ala	Gln	Ser	Gln	Glu	Gly	Trp	Gly	Arg	Glu	Arg	Glu	Gly	Val	
				1535					1540					1545	
Ile	Thr	Ile	Glu	Ser	Gln	Val	His	Pro	Gln	Ser	Pro	Leu	Cys	Pro	
				1550					1555					1560	
Leu	Pro	Gly	Ser	Ala	Phe	Thr	Leu	Ser	Thr	Pro	Ser	Ala	Pro	Gly	
				1565					1570					1575	
Pro	Leu	Val	Phe	Thr	Ala	Leu	Ser	Pro	Asp	Ser	Leu	Gln	Leu	Ser	
				1580					1585					1590	
Trp	Glu	Arg	Pro	Arg	Arg	Pro	Asn	Gly	Asp	Ile	Val	Gly	Tyr	Leu	
				1595					1600					1605	
Val	Thr	Cys	Glu	Met	Ala	Gln	Gly	Gly	Gly	Pro	Ala	Thr	Ala	Phe	
				1610					1615					1620	
Arg	Val	Asp	Gly	Asp	Ser	Pro	Glu	Ser	Arg	Leu	Thr	Val	Pro	Gly	
				1625					1630					1635	
Leu	Ser	Glu	Asn	Val	Pro	Tyr	Lys	Phe	Lys	Val	Gln	Ala	Arg	Thr	
				1640					1645					1650	
Thr	Glu	Gly	Phe	Gly	Pro	Glu	Arg	Glu	Gly	Ile	Ile	Thr	Ile	Glu	
				1655					1660					1665	
Ser	Gln	Asp	Gly	Gly	Pro	Phe	Pro	Gln	Leu	Gly	Ser	Arg	Ala	Gly	
				1670					1675					1680	
Leu	Phe	Gln	His	Pro	Leu	Gln	Ser	Glu	Tyr	Ser	Ser	Ile	Thr	Thr	
				1685					1690					1695	
Thr	His	Thr	Ser	Ala	Thr	Glu	Pro	Phe	Leu	Val	Asp	Gly	Pro	Thr	
				1700					1705					1710	
Leu	Gly	Ala	Gln	His	Leu	Glu	Ala	Gly	Gly	Ser	Leu	Thr	Arg	His	
				1715					1720					1725	
Val	Thr	Gln	Glu	Phe	Val	Ser	Arg	Thr	Leu	Thr	Thr	Ser	Gly	Thr	
				1730					1735					1740	
Leu	Ser	Thr	His	Met	Asp	Gln	Gln	Phe	Phe	Gln	Thr				
				1745					1750						

<210> 33

<211> 1336

<212> PRT

<213> Homo sapiens .

<400> 33

Met	Thr	Leu	Asp	Arg	Pro	Gly	Glu	Gly	Ala	Thr	Met	Leu	Lys	Thr	
1				5					10					15	

Phe Thr Val Leu Leu Phe Cys Ile Arg Met Ser Leu Gly Met Thr

	20	25	30
Ser Ile Val Met Asp Pro Gln Pro Glu Leu Trp Ile Glu Ser Asn	35	40	45
Tyr Pro Gln Ala Pro Trp Glu Asn Ile Thr Leu Trp Cys Arg Ser	50	55	60
Pro Ser Arg Ile Ser Ser Lys Phe Leu Leu Leu Lys Asp Lys Thr	65	70	75
Gln Met Thr Trp Ile Arg Pro Ser His Lys Thr Phe Gln Val Ser	80	85	90
Phe Leu Ile Gly Ala Leu Thr Glu Ser Asn Ala Gly Leu Tyr Arg	95	100	105
Cys Cys Tyr Trp Lys Glu Thr Gly Trp Ser Lys Pro Ser Lys Val	110	115	120
Leu Glu Leu Glu Ala Pro Gly Gln Leu Pro Lys Pro Ile Phe Trp	125	130	135
Ile Gln Ala Glu Thr Pro Ala Leu Pro Gly Cys Asn Val Asn Ile	140	145	150
Leu Cys His Gly Trp Leu Gln Asp Leu Val Phe Met Leu Phe Lys	155	160	165
Glu Gly Tyr Ala Glu Pro Val Asp Tyr Gln Val Pro Thr Gly Thr	170	175	180
Met Ala Ile Phe Ser Ile Asp Asn Leu Thr Pro Glu Asp Glu Gly	185	190	195
Val Tyr Ile Cys Arg Thr His Ile Gln Met Leu Pro Thr Leu Trp	200	205	210
Ser Glu Pro Ser Asn Pro Leu Lys Leu Val Val Ala Gly Leu Tyr	215	220	225
Pro Lys Pro Thr Leu Thr Ala His Pro Gly Pro Ile Met Ala Pro	230	235	240
Gly Glu Ser Leu Asn Leu Arg Cys Gln Gly Pro Ile Tyr Gly Met	245	250	255
Thr Phe Ala Leu Met Arg Val Glu Asp Leu Glu Lys Ser Phe Tyr	260	265	270
His Lys Lys Thr Ile Lys Asn Glu Ala Asn Phe Phe Phe Gln Ser	275	280	285
Leu Lys Ile Gln Asp Thr Gly His Tyr Leu Cys Phe Tyr Tyr Asp	290	295	300
Ala Ser Tyr Arg Gly Ser Leu Leu Ser Asp Val Leu Lys Ile Trp	305	310	315

Val	Thr	Asp	Thr	Phe	Pro	Lys	Thr	Trp	Leu	Leu	Ala	Arg	Pro	Ser	
				320					325					330	
Ala	Val	Val	Gln	Met	Gly	Gln	Asn	Val	Ser	Leu	Arg	Cys	Arg	Gly	
				335					340					345	
Pro	Val	Asp	Gly	Val	Gly	Leu	Ala	Leu	Tyr	Lys	Lys	Gly	Glu	Asp	
				350					355					360	
Lys	Pro	Leu	Gln	Phe	Leu	Asp	Ala	Thr	Ser	Ile	Asp	Asp	Asn	Thr	
				365					370					375	
Ser	Phe	Phe	Leu	Asn	Asn	Val	Thr	Tyr	Ser	Asp	Thr	Gly	Ile	Tyr	
				380					385					390	
Ser	Cys	His	Tyr	Leu	Leu	Thr	Trp	Lys	Thr	Ser	Ile	Arg	Met	Pro	
				395					400					405	
Ser	His	Asn	Thr	Val	Glu	Leu	Met	Val	Val	Asp	Lys	Pro	Pro	Lys	
				410					415					420	
Pro	Ser	Leu	Ser	Ala	Trp	Pro	Ser	Thr	Val	Phe	Lys	Leu	Gly	Lys	
				425					430					435	
Ala	Ile	Thr	Leu	Gln	Cys	Arg	Val	Ser	His	Pro	Val	Leu	Glu	Phe	
				440					445					450	
Ser	Leu	Glu	Trp	Glu	Glu	Arg	Glu	Thr	Phe	Gln	Arg	Phe	Ser	Val	
				455					460					465	
Asn	Gly	Asp	Phe	Ile	Ile	Ser	Asn	Val	Asp	Gly	Lys	Gly	Thr	Gly	
				470					475					480	
Thr	Tyr	Ser	Cys	Ser	Tyr	Arg	Val	Glu	Thr	His	Pro	Asn	Met	Trp	
				485					490					495	
Ser	His	Arg	Ser	Glu	Pro	Leu	Lys	Leu	Met	Gly	Pro	Ala	Gly	Tyr	
				500					505					510	
Leu	Thr	Trp	Asn	Tyr	Val	Leu	Asn	Glu	Ala	Ile	Arg	Leu	Ser	Leu	
				515					520					525	
Ile	Met	Gln	Leu	Val	Ala	Leu	Leu	Leu	Val	Val	Leu	Trp	Ile	Arg	
				530					535					540	
Trp	Lys	Cys	Arg	Arg	Leu	Arg	Ile	Arg	Glu	Ala	Trp	Leu	Leu	Gly	
				545					550					555	
Thr	Ala	Gln	Gly	Val	Thr	Met	Leu	Phe	Ile	Val	Thr	Ala	Leu	Leu	
				560					565					570	
Cys	Cys	Gly	Leu	Cys	Asn	Gly	Val	Leu	Ile	Glu	Glu	Thr	Glu	Ile	
				575					580					585	
Val	Met	Pro	Thr	Pro	Lys	Pro	Glu	Leu	Trp	Ala	Glu	Thr	Asn	Phe	
				590					595					600	
Pro	Leu	Ala	Pro	Trp	Lys	Asn	Leu	Thr	Leu	Trp	Cys	Arg	Ser	Pro	

	605		610		615
Ser Gly Ser Thr	Lys Glu Phe Val Leu	Leu Lys Asp Gly Thr	Gly		
	620		625		630
Trp Ile Ala Thr	Arg Pro Ala Ser Glu	Gln Val Arg Ala Ala	Phe		
	635		640		645
Pro Leu Gly Ala	Leu Thr Gln Ser His	Thr Gly Ser Tyr His	Cys		
	650		655		660
His Ser Trp Glu	Glu Met Ala Val Ser	Glu Pro Ser Glu Ala	Leu		
	665		670		675
Glu Leu Val Gly	Thr Asp Ile Leu Pro	Lys Pro Val Ile Ser	Ala		
	680		685		690
Ser Pro Thr Ile	Arg Gly Gln Glu Leu	Gln Leu Arg Cys Lys	Gly		
	695		700		705
Trp Leu Ala Gly	Met Gly Phe Ala Leu	Tyr Lys Glu Gly Glu	Gln		
	710		715		720
Glu Pro Val Gln	Gln Leu Gly Ala Val	Gly Arg Glu Ala Phe	Phe		
	725		730		735
Thr Ile Gln Arg	Met Glu Asp Lys Asp	Glu Gly Asn Tyr Ser	Cys		
	740		745		750
Arg Thr His Thr	Glu Lys Leu Pro Phe	Lys Trp Ser Glu Pro	Ser		
	755		760		765
Glu Pro Leu Glu	Leu Val Ile Lys Glu	Met Tyr Pro Lys Pro	Phe		
	770		775		780
Phe Lys Thr Trp	Ala Ser Pro Val Val	Thr Pro Gly Ala Arg	Val		
	785		790		795
Thr Phe Asn Cys	Ser Thr Pro His Gln	His Met Ser Phe Ile	Leu		
	800		805		810
Tyr Lys Asp Gly	Ser Glu Ile Ala Ser	Ser Asp Arg Ser Trp	Ala		
	815		820		825
Ser Pro Gly Ala	Ser Ala Ala His Phe	Leu Ile Ile Ser Val	Gly		
	830		835		840
Ile Gly Asp Gly	Gly Asn Tyr Ser Cys	Arg Tyr Tyr Asp Phe	Ser		
	845		850		855
Ile Trp Ser Glu	Pro Ser Asp Pro Val	Glu Leu Val Val Thr	Glu		
	860		865		870
Phe Tyr Pro Lys	Pro Thr Leu Leu Ala	Gln Pro Gly Pro Val	Val		
	875		880		885
Phe Pro Gly Lys	Ser Val Ile Leu Arg	Cys Gln Gly Thr Phe	Gln		
	890		895		900

Gly	Met	Arg	Phe	Ala	Leu	Leu	Gln	Glu	Gly	Ala	His	Val	Pro	Leu	
				905					910					915	
Gln	Phe	Arg	Ser	Val	Ser	Gly	Asn	Ser	Ala	Asp	Phe	Leu	Leu	His	
				920					925					930	
Thr	Val	Gly	Ala	Glu	Asp	Ser	Gly	Asn	Tyr	Ser	Cys	Ile	Tyr	Tyr	
				935					940					945	
Glu	Thr	Thr	Met	Ser	Asn	Arg	Gly	Ser	Tyr	Leu	Ser	Met	Pro	Leu	
				950					955					960	
Met	Ile	Trp	Val	Thr	Asp	Thr	Phe	Pro	Lys	Pro	Trp	Leu	Phe	Ala	
				965					970					975	
Glu	Pro	Ser	Ser	Val	Val	Pro	Met	Gly	Gln	Asn	Val	Thr	Leu	Trp	
				980					985					990	
Cys	Arg	Gly	Pro	Val	His	Gly	Val	Gly	Tyr	Ile	Leu	His	Lys	Glu	
				995					1000					1005	
Gly	Glu	Ala	Thr	Ser	Met	Gln	Leu	Trp	Gly	Ser	Thr	Ser	Asn	Asp	
				1010					1015					1020	
Gly	Ala	Phe	Pro	Ile	Thr	Asn	Ile	Ser	Gly	Thr	Ser	Met	Gly	Arg	
				1025					1030					1035	
Tyr	Ser	Cys	Cys	Tyr	His	Pro	Asp	Trp	Thr	Ser	Ser	Ile	Lys	Ile	
				1040					1045					1050	
Gln	Pro	Ser	Asn	Thr	Leu	Glu	Leu	Leu	Val	Thr	Gly	Leu	Leu	Pro	
				1055					1060					1065	
Lys	Pro	Ser	Leu	Leu	Ala	Gln	Pro	Gly	Pro	Met	Val	Ala	Pro	Gly	
				1070					1075					1080	
Glu	Asn	Met	Thr	Leu	Gln	Cys	Gln	Gly	Glu	Leu	Pro	Asp	Ser	Thr	
				1085					1090					1095	
Phe	Val	Leu	Leu	Lys	Glu	Gly	Ala	Gln	Glu	Pro	Leu	Glu	Gln	Gln	
				1100					1105					1110	
Arg	Pro	Ser	Gly	Tyr	Arg	Ala	Asp	Phe	Trp	Met	Pro	Ala	Val	Arg	
				1115					1120					1125	
Gly	Glu	Asp	Ser	Gly	Ile	Tyr	Ser	Cys	Val	Tyr	Tyr	Leu	Asp	Ser	
				1130					1135					1140	
Thr	Pro	Phe	Ala	Ala	Ser	Asn	His	Ser	Asp	Ser	Leu	Glu	Ile	Trp	
				1145					1150					1155	
Val	Thr	Asp	Lys	Pro	Pro	Lys	Pro	Ser	Leu	Ser	Ala	Trp	Pro	Ser	
				1160					1165					1170	
Thr	Met	Phe	Lys	Leu	Gly	Lys	Asp	Ile	Thr	Leu	Gln	Cys	Arg	Gly	
				1175					1180					1185	
Pro	Leu	Pro	Gly	Val	Glu	Phe	Val	Leu	Glu	His	Asp	Gly	Glu	Glu	

1190	1195	1200
Ala Pro Gln Gln Phe Ser Glu Asp Gly Asp Phe Val Ile Asn Asn		
1205	1210	1215
Val Glu Gly Lys Gly Ile Gly Asn Tyr Ser Cys Ser Tyr Arg Leu		
1220	1225	1230
Gln Ala Tyr Pro Asp Ile Trp Ser Glu Pro Ser Asp Pro Leu Glu		
1235	1240	1245
Leu Val Gly Ala Ala Gly Pro Val Ala Gln Glu Cys Thr Val Gly		
1250	1255	1260
Asn Ile Val Arg Ser Ser Leu Ile Val Val Val Val Val Ala Leu		
1265	1270	1275
Gly Val Val Leu Ala Ile Glu Trp Lys Lys Trp Pro Arg Leu Arg		
1280	1285	1290
Thr Arg Gly Ser Glu Thr Asp Gly Arg Asp Gln Thr Ile Ala Leu		
1295	1300	1305
Glu Glu Cys Asn Gln Glu Gly Glu Pro Gly Thr Pro Ala Asn Ser		
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Pro Ser Ser Thr Ser Gln Arg Ile Ser Val Glu Leu Pro Val Pro		
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Ile

<210> 34
 <211> 1907
 <212> PRT
 <213> Homo sapiens

<400> 34

Met Ala Pro Glu Pro Ala Pro Gly Arg Thr Met Val Pro Leu Val		
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Pro Ala Leu Val Met Leu Gly Leu Val Ala Gly Ala His Gly Asp		
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Ser Lys Pro Val Phe Ile Lys Val Pro Glu Asp Gln Thr Gly Leu		
35	40	45
Ser Gly Gly Val Ala Ser Phe Val Cys Gln Ala Thr Gly Glu Pro		
50	55	60
Lys Pro Arg Ile Thr Trp Met Lys Lys Gly Lys Lys Val Ser Ser		
65	70	75
Gln Arg Phe Glu Val Ile Glu Phe Asp Asp Gly Ala Gly Ser Val		
80	85	90
Leu Arg Ile Gln Pro Leu Arg Val Gln Arg Asp Glu Ala Ile Tyr		
95	100	105

Glu	Cys	Thr	Ala	Thr	Asn	Ser	Leu	Gly	Glu	Ile	Asn	Thr	Ser	Ala	
				110					115					120	
Lys	Leu	Ser	Val	Leu	Glu	Glu	Glu	Gln	Leu	Pro	Pro	Gly	Phe	Pro	
				125					130					135	
Ser	Ile	Asp	Met	Gly	Pro	Gln	Leu	Lys	Val	Val	Glu	Lys	Ala	Arg	
				140					145					150	
Thr	Ala	Thr	Met	Leu	Cys	Ala	Ala	Gly	Gly	Asn	Pro	Asp	Pro	Glu	
				155					160					165	
Ile	Ser	Trp	Phe	Lys	Asp	Phe	Leu	Pro	Val	Asp	Pro	Ala	Thr	Ser	
				170					175					180	
Asn	Gly	Arg	Ile	Lys	Gln	Leu	Arg	Ser	Gly	Ala	Leu	Gln	Ile	Glu	
				185					190					195	
Ser	Ser	Glu	Glu	Ser	Asp	Gln	Gly	Lys	Tyr	Glu	Cys	Val	Ala	Thr	
				200					205					210	
Asn	Ser	Ala	Gly	Thr	Arg	Tyr	Ser	Ala	Pro	Ala	Asn	Leu	Tyr	Val	
				215					220					225	
Arg	Val	Arg	Arg	Val	Ala	Pro	Arg	Phe	Ser	Ile	Pro	Pro	Ser	Ser	
				230					235					240	
Gln	Glu	Val	Met	Pro	Gly	Gly	Ser	Val	Asn	Leu	Thr	Cys	Val	Ala	
				245					250					255	
Val	Gly	Ala	Pro	Met	Pro	Tyr	Val	Lys	Trp	Met	Met	Gly	Ala	Glu	
				260					265					270	
Glu	Leu	Thr	Lys	Glu	Asp	Glu	Met	Pro	Val	Gly	Arg	Asn	Val	Leu	
				275					280					285	
Glu	Leu	Ser	Asn	Val	Val	Arg	Ser	Ala	Asn	Tyr	Thr	Cys	Val	Ala	
				290					295					300	
Ile	Ser	Ser	Leu	Gly	Met	Ile	Glu	Ala	Thr	Ala	Gln	Val	Thr	Val	
				305					310					315	
Lys	Ala	Leu	Pro	Lys	Pro	Pro	Ile	Asp	Leu	Val	Val	Thr	Glu	Thr	
				320					325					330	
Thr	Ala	Thr	Ser	Val	Thr	Leu	Thr	Trp	Asp	Ser	Gly	Asn	Ser	Glu	
				335					340					345	
Pro	Val	Thr	Tyr	Tyr	Gly	Ile	Gln	Tyr	Arg	Ala	Ala	Gly	Thr	Glu	
				350					355					360	
Gly	Pro	Phe	Gln	Glu	Val	Asp	Gly	Val	Ala	Thr	Thr	Arg	Tyr	Ser	
				365					370					375	
Ile	Gly	Gly	Leu	Ser	Pro	Phe	Ser	Glu	Tyr	Ala	Phe	Arg	Val	Leu	
				380					385					390	
Ala	Val	Asn	Ser	Ile	Gly	Arg	Gly	Pro	Pro	Ser	Glu	Ala	Val	Arg	

				395						400					405
Ala	Arg	Thr	Gly	Glu	Gln	Ala	Pro	Ser	Ser	Pro	Pro	Arg	Arg	Val	
				410					415					420	
Gln	Ala	Arg	Met	Leu	Ser	Ala	Ser	Thr	Met	Leu	Val	Gln	Trp	Glu	
				425					430					435	
Pro	Pro	Glu	Glu	Pro	Asn	Gly	Leu	Val	Arg	Gly	Tyr	Arg	Val	Tyr	
				440					445					450	
Tyr	Thr	Pro	Asp	Ser	Arg	Arg	Pro	Pro	Asn	Ala	Trp	His	Lys	His	
				455					460					465	
Asn	Thr	Asp	Ala	Gly	Leu	Leu	Thr	Thr	Val	Gly	Ser	Leu	Leu	Pro	
				470					475					480	
Gly	Ile	Thr	Tyr	Ser	Leu	Arg	Val	Leu	Ala	Phe	Thr	Ala	Val	Gly	
				485					490					495	
Asp	Gly	Pro	Pro	Ser	Pro	Thr	Ile	Gln	Val	Lys	Thr	Gln	Gln	Gly	
				500					505					510	
Val	Pro	Ala	Gln	Pro	Ala	Asp	Phe	Gln	Ala	Glu	Val	Glu	Ser	Asp	
				515					520					525	
Thr	Arg	Ile	Gln	Leu	Ser	Trp	Leu	Leu	Pro	Pro	Gln	Glu	Arg	Ile	
				530					535					540	
Ile	Met	Tyr	Glu	Leu	Val	Tyr	Trp	Ala	Ala	Glu	Asp	Glu	Asp	Gln	
				545					550					555	
Gln	His	Lys	Val	Thr	Phe	Asp	Pro	Thr	Ser	Ser	Tyr	Thr	Leu	Glu	
				560					565					570	
Asp	Leu	Lys	Pro	Asp	Thr	Leu	Tyr	Arg	Phe	Gln	Leu	Ala	Ala	Arg	
				575					580					585	
Ser	Asp	Met	Gly	Val	Gly	Val	Phe	Thr	Pro	Thr	Ile	Glu	Ala	Arg	
				590					595					600	
Thr	Ala	Gln	Ser	Thr	Pro	Ser	Ala	Pro	Pro	Gln	Lys	Val	Met	Cys	
				605					610					615	
Val	Ser	Met	Gly	Ser	Thr	Thr	Val	Arg	Val	Ser	Trp	Val	Pro	Pro	
				620					625					630	
Pro	Ala	Asp	Ser	Arg	Asn	Gly	Val	Ile	Thr	Gln	Tyr	Ser	Val	Ala	
				635					640					645	
His	Glu	Ala	Val	Asp	Gly	Glu	Asp	Arg	Gly	Arg	His	Val	Val	Asp	
				650					655					660	
Gly	Ile	Ser	Arg	Glu	His	Ser	Ser	Trp	Asp	Leu	Val	Gly	Leu	Glu	
				665					670					675	
Lys	Trp	Thr	Glu	Tyr	Arg	Val	Trp	Val	Arg	Ala	His	Thr	Asp	Val	
				680					685					690	

Gly	Pro	Gly	Pro	Glu	Ser	Ser	Pro	Val	Leu	Val	Arg	Thr	Asp	Glu	
				695					700					705	
Asp	Val	Pro	Ser	Gly	Pro	Pro	Arg	Lys	Val	Glu	Val	Glu	Pro	Leu	
				710					715					720	
Asn	Ser	Thr	Ala	Val	His	Val	Tyr	Trp	Lys	Leu	Pro	Val	Pro	Ser	
				725					730					735	
Lys	Gln	His	Gly	Gln	Ile	Arg	Gly	Tyr	Gln	Val	Thr	Tyr	Val	Arg	
				740					745					750	
Leu	Glu	Asn	Gly	Glu	Pro	Arg	Gly	Leu	Pro	Ile	Ile	Gln	Asp	Val	
				755					760					765	
Met	Leu	Ala	Glu	Ala	Gln	Trp	Arg	Pro	Glu	Glu	Ser	Glu	Asp	Tyr	
				770					775					780	
Glu	Thr	Thr	Ile	Ser	Gly	Leu	Thr	Pro	Glu	Thr	Thr	Tyr	Ser	Val	
				785					790					795	
Thr	Val	Ala	Ala	Tyr	Thr	Thr	Lys	Gly	Asp	Gly	Ala	Arg	Ser	Lys	
				800					805					810	
Pro	Lys	Ile	Val	Thr	Thr	Thr	Gly	Ala	Val	Pro	Gly	Arg	Pro	Thr	
				815					820					825	
Met	Met	Ile	Ser	Thr	Thr	Ala	Met	Asn	Thr	Ala	Leu	Leu	Gln	Trp	
				830					835					840	
His	Pro	Pro	Lys	Glu	Leu	Pro	Gly	Glu	Leu	Leu	Gly	Tyr	Arg	Leu	
				845					850					855	
Gln	Tyr	Cys	Arg	Ala	Asp	Glu	Ala	Arg	Pro	Asn	Thr	Ile	Asp	Phe	
				860					865					870	
Gly	Lys	Asp	Asp	Gln	His	Phe	Thr	Val	Thr	Gly	Leu	His	Lys	Gly	
				875					880					885	
Thr	Thr	Tyr	Ile	Phe	Arg	Leu	Ala	Ala	Lys	Asn	Arg	Ala	Gly	Leu	
				890					895					900	
Gly	Glu	Glu	Phe	Glu	Lys	Glu	Ile	Arg	Thr	Pro	Glu	Asp	Leu	Pro	
				905					910					915	
Ser	Gly	Phe	Pro	Gln	Asn	Leu	His	Val	Thr	Gly	Leu	Thr	Thr	Ser	
				920					925					930	
Thr	Thr	Glu	Leu	Ala	Trp	Asp	Pro	Pro	Val	Leu	Ala	Glu	Arg	Asn	
				935					940					945	
Gly	Arg	Ile	Ile	Ser	Tyr	Thr	Val	Val	Phe	Arg	Asp	Ile	Asn	Ser	
				950					955					960	
Gln	Gln	Glu	Leu	Gln	Asn	Ile	Thr	Thr	Asp	Thr	Arg	Phe	Thr	Leu	
				965					970					975	
Thr	Gly	Leu	Lys	Pro	Asp	Thr	Thr	Tyr	Asp	Ile	Lys	Val	Arg	Ala	

980										985					990				
Trp	Thr	Ser	Lys	Gly	Ser	Gly	Pro	Leu	Ser	Pro	Ser	Ile	Gln	Ser					
				995					1000					1005					
Arg	Thr	Met	Pro	Val	Glu	Gln	Val	Phe	Ala	Lys	Asn	Phe	Arg	Val					
				1010					1015					1020					
Ala	Ala	Ala	Met	Lys	Thr	Ser	Val	Leu	Leu	Ser	Trp	Glu	Val	Pro					
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Asp	Ser	Tyr	Lys	Ser	Ala	Val	Pro	Phe	Lys	Ile	Leu	Tyr	Asn	Gly					
				1040					1045					1050					
Gln	Ser	Val	Glu	Val	Asp	Gly	His	Ser	Met	Arg	Lys	Leu	Ile	Ala					
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Asp	Leu	Gln	Pro	Asn	Thr	Glu	Tyr	Ser	Phe	Val	Leu	Met	Asn	Arg					
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Gly	Ser	Ser	Ala	Gly	Gly	Leu	Gln	His	Leu	Val	Ser	Ile	Arg	Thr					
				1085					1090					1095					
Ala	Pro	Asp	Leu	Leu	Pro	His	Lys	Pro	Leu	Pro	Ala	Ser	Ala	Tyr					
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Ile	Glu	Asp	Gly	Arg	Phe	Asp	Leu	Ser	Met	Pro	His	Val	Gln	Asp					
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Pro	Ser	Leu	Val	Arg	Trp	Phe	Tyr	Ile	Val	Val	Val	Pro	Ile	Asp					
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Arg	Val	Gly	Gly	Ser	Met	Leu	Thr	Pro	Arg	Trp	Ser	Thr	Pro	Glu					
				1145					1150					1155					
Glu	Leu	Glu	Leu	Asp	Glu	Leu	Leu	Glu	Ala	Ile	Glu	Gln	Gly	Gly					
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Glu	Glu	Gln	Arg	Arg	Arg	Arg	Arg	Gln	Ala	Glu	Arg	Leu	Lys	Pro					
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Tyr	Val	Ala	Ala	Gln	Leu	Asp	Val	Leu	Pro	Glu	Thr	Phe	Thr	Leu					
				1190					1195					1200					
Gly	Asp	Lys	Lys	Asn	Tyr	Arg	Gly	Phe	Tyr	Asn	Arg	Pro	Leu	Ser					
				1205					1210					1215					
Pro	Asp	Leu	Ser	Tyr	Gln	Cys	Phe	Val	Leu	Ala	Ser	Leu	Lys	Glu					
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Pro	Met	Asp	Gln	Lys	Arg	Tyr	Ala	Ser	Ser	Pro	Tyr	Ser	Asp	Glu					
				1235					1240					1245					
Ile	Val	Val	Gln	Val	Thr	Pro	Ala	Gln	Gln	Gln	Glu	Glu	Pro	Glu					
				1250					1255					1260					
Met	Leu	Trp	Val	Thr	Gly	Pro	Val	Leu	Ala	Val	Ile	Leu	Ile	Ile					
				1265					1270					1275					

Leu	Ile	Val	Ile	Ala	Ile	Leu	Leu	Phe	Lys	Arg	Lys	Arg	Thr	His	
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Ser	Pro	Ser	Ser	Lys	Asp	Glu	Gln	Ser	Ile	Gly	Leu	Lys	Asp	Ser	
				1295					1300					1305	
Leu	Leu	Ala	His	Ser	Ser	Asp	Pro	Val	Glu	Met	Arg	Arg	Leu	Asn	
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Tyr	Gln	Thr	Pro	Gly	Met	Arg	Asp	His	Pro	Pro	Ile	Pro	Ile	Thr	
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Asp	Leu	Ala	Asp	Asn	Ile	Glu	Arg	Leu	Lys	Ala	Asn	Asp	Gly	Leu	
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Lys	Phe	Ser	Gln	Glu	Tyr	Glu	Ser	Ile	Asp	Pro	Gly	Gln	Gln	Phe	
				1355					1360					1365	
Thr	Trp	Glu	Asn	Ser	Asn	Leu	Glu	Val	Asn	Lys	Pro	Lys	Asn	Arg	
				1370					1375					1380	
Tyr	Ala	Asn	Val	Ile	Ala	Tyr	Asp	His	Ser	Arg	Val	Ile	Leu	Thr	
				1385					1390					1395	
Ser	Ile	Asp	Gly	Val	Pro	Gly	Ser	Asp	Tyr	Ile	Asn	Ala	Asn	Tyr	
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Ile	Asp	Gly	Tyr	Arg	Lys	Gln	Asn	Ala	Tyr	Ile	Ala	Thr	Gln	Gly	
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Pro	Leu	Pro	Glu	Thr	Met	Gly	Asp	Phe	Trp	Arg	Met	Val	Trp	Glu	
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Gln	Arg	Thr	Ala	Thr	Val	Val	Met	Met	Thr	Arg	Leu	Glu	Glu	Lys	
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Ser	Arg	Val	Lys	Cys	Asp	Gln	Tyr	Trp	Pro	Ala	Arg	Gly	Thr	Glu	
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Thr	Cys	Gly	Leu	Ile	Gln	Val	Thr	Leu	Leu	Asp	Thr	Val	Glu	Leu	
				1475					1480					1485	
Ala	Thr	Tyr	Thr	Val	Arg	Thr	Phe	Ala	Leu	His	Lys	Ser	Gly	Ser	
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Ser	Glu	Lys	Arg	Glu	Leu	Arg	Gln	Phe	Gln	Phe	Met	Ala	Trp	Pro	
				1505					1510					1515	
Asp	His	Gly	Val	Pro	Glu	Tyr	Pro	Thr	Pro	Ile	Leu	Ala	Phe	Leu	
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Arg	Arg	Val	Lys	Ala	Cys	Asn	Pro	Leu	Asp	Ala	Gly	Pro	Met	Val	
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Val	His	Cys	Ser	Ala	Gly	Val	Gly	Arg	Thr	Gly	Cys	Phe	Ile	Val	
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Ile	Asp	Ala	Met	Leu	Glu	Arg	Met	Lys	His	Glu	Lys	Thr	Val	Asp	

1565	1570	1575
Ile Tyr Gly His Val Thr Cys Met Arg Ser Gln Arg Asn Tyr Met 1580	1585	1590
Val Gln Thr Glu Asp Gln Tyr Val Phe Ile His Glu Ala Leu Leu 1595	1600	1605
Glu Ala Ala Thr Cys Gly His Thr Glu Val Pro Ala Arg Asn Leu 1610	1615	1620
Tyr Ala His Ile Gln Lys Leu Gly Gln Val Pro Pro Gly Glu Ser 1625	1630	1635
Val Thr Ala Met Glu Leu Glu Phe Lys Leu Leu Ala Ser Ser Lys 1640	1645	1650
Ala His Thr Ser Arg Phe Ile Ser Ala Asn Leu Pro Cys Asn Lys 1655	1660	1665
Phe Lys Asn Arg Leu Val Asn Ile Met Pro Tyr Glu Leu Thr Arg 1670	1675	1680
Val Cys Leu Gln Pro Ile Arg Gly Val Glu Gly Ser Asp Tyr Ile 1685	1690	1695
Asn Ala Ser Phe Leu Asp Gly Tyr Arg Gln Gln Lys Ala Tyr Ile 1700	1705	1710
Ala Thr Gln Gly Pro Leu Ala Glu Ser Thr Glu Asp Phe Trp Arg 1715	1720	1725
Met Leu Trp Glu His Asn Ser Thr Ile Ile Val Met Leu Thr Lys 1730	1735	1740
Leu Arg Glu Met Gly Arg Glu Lys Cys His Gln Tyr Trp Pro Ala 1745	1750	1755
Glu Arg Ser Ala Arg Tyr Gln Tyr Phe Val Val Asp Pro Met Ala 1760	1765	1770
Glu Tyr Asn Met Pro Gln Tyr Ile Leu Arg Glu Phe Lys Val Thr 1775	1780	1785
Asp Ala Arg Asp Gly Gln Ser Arg Thr Ile Arg Gln Phe Gln Phe 1790	1795	1800
Thr Asp Trp Pro Glu Gln Gly Val Pro Lys Thr Gly Glu Gly Phe 1805	1810	1815
Ile Asp Phe Ile Gly Gln Val His Lys Thr Lys Glu Gln Phe Gly 1820	1825	1830
Gln Asp Gly Pro Ile Thr Val His Cys Ser Ala Gly Val Gly Arg 1835	1840	1845
Thr Gly Val Phe Ile Thr Leu Ser Ile Val Leu Glu Arg Met Arg 1850	1855	1860

Tyr Glu Gly Val Val Asp Met Phe Gln Thr Val Lys Thr Leu Arg
1865 1870 1875

Thr Gln Arg Pro Ala Met Val Gln Thr Glu Asp Gln Tyr Gln Leu
1880 1885 1890

Cys Tyr Arg Ala Ala Leu Glu Tyr Leu Gly Ser Phe Asp His Tyr
1895 1900 1905

Ala Thr

<210> 35

<211> 310

<212> PRT

<213> Homo sapiens

<400> 35

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20 25 30

Pro Glu Asp Gln Asp Gly Ser Gly Asp Asp Ser Asp Asn Phe Ser
35 40 45

Gly Ser Gly Ala Gly Ala Leu Gln Asp Ile Thr Leu Ser Gln Gln
50 55 60

Thr Pro Ser Thr Trp Lys Asp Thr Gln Leu Leu Thr Ala Ile Pro
65 70 75

Thr Ser Pro Glu Pro Thr Gly Leu Glu Ala Thr Ala Ala Ser Thr
80 85 90

Ser Thr Leu Pro Ala Gly Glu Gly Pro Lys Glu Gly Glu Ala Val
95 100 105

Val Leu Pro Glu Val Glu Pro Gly Leu Thr Ala Arg Glu Gln Glu
110 115 120

Ala Thr Pro Arg Pro Arg Glu Thr Thr Gln Leu Pro Thr Thr His
125 130 135

Gln Ala Ser Thr Thr Thr Ala Thr Thr Ala Gln Glu Pro Ala Thr
140 145 150

Ser His Pro His Arg Asp Met Gln Pro Gly His His Glu Thr Ser
155 160 165

Thr Pro Ala Gly Pro Ser Gln Ala Asp Leu His Thr Pro His Thr
170 175 180

Glu Asp Gly Gly Pro Ser Ala Thr Glu Arg Ala Ala Glu Asp Gly
185 190 195

Ala Ser Ser Gln Leu Pro Ala Ala Glu Gly Ser Gly Glu Gln Asp

	200		205		210
Phe Thr Phe Glu Thr Ser Gly Glu Asn Thr Ala Val Val Ala Val					
	215		220		225
Glu Pro Asp Arg Arg Asn Gln Ser Pro Val Asp Gln Gly Ala Thr					
	230		235		240
Gly Ala Ser Gln Gly Leu Leu Asp Arg Lys Glu Val Leu Gly Gly					
	245		250		255
Val Ile Ala Gly Gly Leu Val Gly Leu Ile Phe Ala Val Cys Leu					
	260		265		270
Val Gly Phe Met Leu Tyr Arg Met Lys Lys Lys Asp Glu Gly Ser					
	275		280		285
Tyr Ser Leu Glu Glu Pro Lys Gln Ala Asn Gly Gly Ala Tyr Gln					
	290		295		300
Lys Pro Thr Lys Gln Glu Glu Phe Tyr Ala					
	305		310		

<210> 36
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 36
Met Lys Ile Phe Leu Pro Val Leu Leu Ala Ala Leu Leu Gly Val
1 5 10 15
Glu Arg Ala Ser Ser Leu Met Cys Phe Ser Cys Leu Asn Gln Lys
20 25 30
Ser Asn Leu Tyr Cys Leu Lys Pro Thr Ile Cys Ser Asp Gln Asp
35 40 45
Asn Tyr Cys Val Thr Val Ser Ala Ser Ala Gly Ile Gly Asn Leu
50 55 60
Val Thr Phe Gly His Ser Leu Ser Lys Thr Cys Ser Pro Ala Cys
65 70 75
Pro Ile Pro Glu Gly Val Asn Val Gly Val Ala Ser Met Gly Ile
80 85 90
Ser Cys Cys Gln Ser Phe Leu Cys Asn Phe Ser Ala Ala Asp Gly
95 100 105
Gly Leu Arg Ala Ser Val Thr Leu Leu Gly Ala Gly Leu Leu Leu
110 115 120
Ser Leu Leu Pro Ala Leu Leu Arg Phe Gly Pro
125 130

<210> 37
 <211> 249

<212> PRT
 <213> Homo sapiens

<400> 37

Met	Asp	Gly	Lys	Lys	Cys	Ser	Val	Trp	Met	Phe	Leu	Pro	Leu	Val	1	5	10	15
Phe	Thr	Leu	Phe	Thr	Ser	Ala	Gly	Leu	Trp	Ile	Val	Tyr	Phe	Ile	20	25	30	
Ala	Val	Glu	Asp	Asp	Lys	Ile	Leu	Pro	Leu	Asn	Ser	Ala	Glu	Arg	35	40	45	
Lys	Pro	Gly	Val	Lys	His	Ala	Pro	Tyr	Ile	Ser	Ile	Ala	Gly	Asp	50	55	60	
Asp	Pro	Pro	Ala	Ser	Cys	Val	Phe	Ser	Gln	Val	Met	Asn	Met	Ala	65	70	75	
Ala	Phe	Leu	Ala	Leu	Val	Val	Ala	Val	Leu	Arg	Phe	Ile	Gln	Leu	80	85	90	
Lys	Pro	Lys	Val	Leu	Asn	Pro	Trp	Leu	Asn	Ile	Ser	Gly	Leu	Val	95	100	105	
Ala	Leu	Cys	Leu	Ala	Ser	Phe	Gly	Met	Thr	Leu	Leu	Gly	Asn	Phe	110	115	120	
Gln	Leu	Thr	Asn	Asp	Glu	Glu	Ile	His	Asn	Val	Gly	Thr	Ser	Leu	125	130	135	
Thr	Phe	Gly	Phe	Gly	Thr	Leu	Thr	Cys	Trp	Ile	Gln	Ala	Ala	Leu	140	145	150	
Thr	Leu	Lys	Val	Asn	Ile	Lys	Asn	Glu	Gly	Arg	Arg	Val	Gly	Ile	155	160	165	
Pro	Arg	Val	Ile	Leu	Ser	Ala	Ser	Ile	Thr	Leu	Cys	Val	Val	Leu	170	175	180	
Tyr	Phe	Ile	Leu	Met	Ala	Gln	Ser	Ile	His	Met	Tyr	Ala	Ala	Arg	185	190	195	
Val	Gln	Trp	Gly	Leu	Val	Met	Cys	Phe	Leu	Ser	Tyr	Phe	Gly	Thr	200	205	210	
Phe	Ala	Val	Glu	Phe	Arg	His	Tyr	Arg	Tyr	Glu	Ile	Val	Cys	Ser	215	220	225	
Glu	Tyr	Gln	Glu	Asn	Phe	Leu	Ser	Phe	Ser	Glu	Ser	Leu	Ser	Glu	230	235	240	
Ala	Ser	Glu	Tyr	Gln	Thr	Asp	Gln	Val	245									

<210> 38
 <211> 145
 <212> PRT

<213> Homo sapiens

<400> 38

Met	Glu	Leu	Ala	Leu	Leu	Cys	Gly	Leu	Val	Val	Met	Ala	Gly	Val	
1				5					10					15	
Ile	Pro	Ile	Gln	Gly	Gly	Ile	Leu	Asn	Leu	Asn	Lys	Met	Val	Lys	
				20					25					30	
Gln	Val	Thr	Gly	Lys	Met	Pro	Ile	Leu	Ser	Tyr	Trp	Pro	Tyr	Gly	
				35					40					45	
Cys	His	Cys	Gly	Leu	Gly	Gly	Arg	Gly	Gln	Pro	Lys	Asp	Ala	Thr	
				50					55					60	
Asp	Trp	Cys	Cys	Gln	Thr	His	Asp	Cys	Cys	Tyr	Asp	His	Leu	Lys	
				65					70					75	
Thr	Gln	Gly	Cys	Gly	Ile	Tyr	Lys	Asp	Tyr	Tyr	Arg	Tyr	Asn	Phe	
				80					85					90	
Ser	Gln	Gly	Asn	Ile	His	Cys	Ser	Asp	Lys	Gly	Ser	Trp	Cys	Glu	
				95					100					105	
Gln	Gln	Leu	Cys	Ala	Cys	Asp	Lys	Glu	Val	Ala	Phe	Cys	Leu	Lys	
				110					115					120	
Arg	Asn	Leu	Asp	Thr	Tyr	Gln	Lys	Arg	Leu	Arg	Phe	Tyr	Trp	Arg	
				125					130					135	
Pro	His	Cys	Arg	Gly	Gln	Thr	Pro	Gly	Cys						
				140					145						

<210> 39

<211> 1533

<212> PRT

<213> Homo sapiens

<400> 39

Met	Tyr	Ile	Arg	Val	Ser	Tyr	Asp	Thr	Lys	Pro	Asp	Ser	Leu	Leu	
1				5					10					15	
His	Leu	Met	Val	Lys	Asp	Trp	Gln	Leu	Glu	Leu	Pro	Lys	Leu	Leu	
				20					25					30	
Ile	Ser	Val	His	Gly	Gly	Leu	Gln	Asn	Phe	Glu	Met	Gln	Pro	Lys	
				35					40					45	
Leu	Lys	Gln	Val	Phe	Gly	Lys	Gly	Leu	Ile	Lys	Ala	Ala	Met	Thr	
				50					55					60	
Thr	Gly	Ala	Trp	Ile	Phe	Thr	Gly	Gly	Val	Ser	Thr	Gly	Val	Ile	
				65					70					75	
Ser	His	Val	Gly	Asp	Ala	Leu	Lys	Asp	His	Ser	Ser	Lys	Ser	Arg	
				80					85					90	
Gly	Arg	Val	Cys	Ala	Ile	Gly	Ile	Ala	Pro	Trp	Gly	Ile	Val	Glu	

Leu	Glu	Gln	Ala	Met	Leu	Asp	Ala	Leu	Val	Leu	Asp	Arg	Val	Asp	
				395					400					405	
Phe	Val	Lys	Leu	Leu	Ile	Glu	Asn	Gly	Val	Asn	Met	Gln	His	Phe	
				410					415					420	
Leu	Thr	Ile	Pro	Arg	Leu	Glu	Glu	Leu	Tyr	Asn	Thr	Arg	Leu	Gly	
				425					430					435	
Pro	Pro	Asn	Thr	Leu	His	Leu	Leu	Val	Arg	Asp	Val	Lys	Lys	Ser	
				440					445					450	
Asn	Leu	Pro	Pro	Asp	Tyr	His	Ile	Ser	Leu	Ile	Asp	Ile	Gly	Leu	
				455					460					465	
Val	Leu	Glu	Tyr	Leu	Met	Gly	Gly	Ala	Tyr	Arg	Cys	Asn	Tyr	Thr	
				470					475					480	
Arg	Lys	Asn	Phe	Arg	Thr	Leu	Tyr	Asn	Asn	Leu	Phe	Gly	Pro	Lys	
				485					490					495	
Arg	Pro	Lys	Ala	Leu	Lys	Leu	Leu	Gly	Met	Glu	Asp	Asp	Glu	Pro	
				500					505					510	
Pro	Ala	Lys	Gly	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Glu	Glu	Glu	
				515					520					525	
Ile	Asp	Ile	Asp	Val	Asp	Asp	Pro	Ala	Val	Ser	Arg	Phe	Gln	Tyr	
				530					535					540	
Pro	Phe	His	Glu	Leu	Met	Val	Trp	Ala	Val	Leu	Met	Lys	Arg	Gln	
				545					550					555	
Lys	Met	Ala	Val	Phe	Leu	Trp	Gln	Arg	Gly	Glu	Glu	Ser	Met	Ala	
				560					565					570	
Lys	Ala	Leu	Val	Ala	Cys	Lys	Leu	Tyr	Lys	Ala	Met	Ala	His	Glu	
				575					580					585	
Ser	Ser	Glu	Ser	Asp	Leu	Val	Asp	Asp	Ile	Ser	Gln	Asp	Leu	Asp	
				590					595					600	
Asn	Asn	Ser	Lys	Asp	Phe	Gly	Gln	Leu	Ala	Leu	Glu	Leu	Leu	Asp	
				605					610					615	
Gln	Ser	Tyr	Lys	His	Asp	Glu	Gln	Ile	Ala	Met	Lys	Leu	Leu	Thr	
				620					625					630	
Tyr	Glu	Leu	Lys	Asn	Trp	Ser	Asn	Ser	Thr	Cys	Leu	Lys	Leu	Ala	
				635					640					645	
Val	Ala	Ala	Lys	His	Arg	Asp	Phe	Ile	Ala	His	Thr	Cys	Ser	Gln	
				650					655					660	
Met	Leu	Leu	Thr	Asp	Met	Trp	Met	Gly	Arg	Leu	Arg	Met	Arg	Lys	
				665					670					675	
Asn	Pro	Gly	Leu	Lys	Val	Ile	Met	Gly	Ile	Leu	Leu	Pro	Pro	Thr	

	680		685		690
Ile Leu Phe Leu Glu Phe Arg Thr Tyr Asp Asp Phe Ser Tyr Gln	695		700		705
Thr Ser Lys Glu Asn Glu Asp Gly Lys Glu Lys Glu Glu Glu Asn	710		715		720
Thr Asp Ala Asn Ala Asp Ala Gly Ser Arg Lys Gly Asp Glu Glu	725		730		735
Asn Glu His Lys Lys Gln Arg Ser Ile Pro Ile Gly Thr Lys Ile	740		745		750
Cys Glu Phe Tyr Asn Ala Pro Ile Val Lys Phe Trp Phe Tyr Thr	755		760		765
Ile Ser Tyr Leu Gly Tyr Leu Leu Leu Phe Asn Tyr Val Ile Leu	770		775		780
Val Arg Met Asp Gly Trp Pro Ser Leu Gln Glu Trp Ile Val Ile	785		790		795
Ser Tyr Ile Val Ser Leu Ala Leu Glu Lys Ile Arg Glu Ile Leu	800		805		810
Met Ser Glu Pro Gly Lys Leu Ser Gln Lys Ile Lys Val Trp Leu	815		820		825
Gln Glu Tyr Trp Asn Ile Thr Asp Leu Val Ala Ile Ser Thr Phe	830		835		840
Met Ile Gly Ala Ile Leu Arg Leu Gln Asn Gln Pro Tyr Met Gly	845		850		855
Tyr Gly Arg Val Ile Tyr Cys Val Asp Ile Ile Phe Trp Tyr Ile	860		865		870
Arg Val Leu Asp Ile Phe Gly Val Asn Lys Tyr Leu Gly Pro Tyr	875		880		885
Val Met Met Ile Gly Lys Met Met Ile Asp Met Leu Tyr Phe Val	890		895		900
Val Ile Met Leu Val Val Leu Met Ser Phe Gly Val Ala Arg Gln	905		910		915
Ala Ile Leu His Pro Glu Glu Lys Pro Ser Trp Lys Leu Ala Arg	920		925		930
Asn Ile Phe Tyr Met Pro Tyr Trp Met Ile Tyr Gly Glu Val Phe	935		940		945
Ala Asp Gln Ile Asp Leu Tyr Ala Met Glu Ile Asn Pro Pro Cys	950		955		960
Gly Glu Asn Leu Tyr Asp Glu Glu Gly Lys Arg Leu Pro Pro Cys	965		970		975

Ile	Pro	Gly	Ala	Trp	Leu	Thr	Pro	Ala	Leu	Met	Ala	Cys	Tyr	Leu	
				980					985					990	
Leu	Val	Ala	Asn	Ile	Leu	Leu	Val	Asn	Leu	Leu	Ile	Ala	Val	Phe	
				995					1000					1005	
Asn	Asn	Thr	Phe	Phe	Glu	Val	Lys	Ser	Ile	Ser	Asn	Gln	Val	Trp	
				1010					1015					1020	
Lys	Phe	Gln	Arg	Tyr	Gln	Leu	Ile	Met	Thr	Phe	His	Asp	Arg	Pro	
				1025					1030					1035	
Val	Leu	Pro	Pro	Pro	Met	Ile	Ile	Leu	Ser	His	Ile	Tyr	Ile	Ile	
				1040					1045					1050	
Ile	Met	Arg	Leu	Ser	Gly	Arg	Cys	Arg	Lys	Lys	Arg	Glu	Gly	Asp	
				1055					1060					1065	
Gln	Glu	Glu	Arg	Asp	Arg	Gly	Leu	Lys	Leu	Phe	Leu	Ser	Asp	Glu	
				1070					1075					1080	
Glu	Leu	Lys	Arg	Leu	His	Glu	Phe	Glu	Glu	Gln	Cys	Val	Gln	Glu	
				1085					1090					1095	
His	Phe	Arg	Glu	Lys	Glu	Asp	Glu	Gln	Gln	Ser	Ser	Ser	Asp	Glu	
				1100					1105					1110	
Arg	Ile	Arg	Val	Thr	Ser	Glu	Arg	Val	Glu	Asn	Met	Ser	Met	Arg	
				1115					1120					1125	
Leu	Glu	Glu	Ile	Asn	Glu	Arg	Glu	Thr	Phe	Met	Lys	Thr	Ser	Leu	
				1130					1135					1140	
Gln	Thr	Val	Asp	Leu	Arg	Leu	Ala	Gln	Leu	Glu	Glu	Leu	Ser	Asn	
				1145					1150					1155	
Arg	Met	Val	Asn	Ala	Leu	Glu	Asn	Leu	Ala	Gly	Ile	Asp	Arg	Ser	
				1160					1165					1170	
Asp	Leu	Ile	Gln	Ala	Arg	Ser	Arg	Ala	Ser	Ser	Glu	Cys	Glu	Ala	
				1175					1180					1185	
Thr	Tyr	Leu	Leu	Arg	Gln	Ser	Ser	Ile	Asn	Ser	Ala	Asp	Gly	Tyr	
				1190					1195					1200	
Ser	Leu	Tyr	Arg	Tyr	His	Phe	Asn	Gly	Glu	Glu	Leu	Leu	Phe	Glu	
				1205					1210					1215	
Asp	Thr	Ser	Leu	Ser	Thr	Ser	Pro	Gly	Thr	Gly	Val	Arg	Lys	Lys	
				1220					1225					1230	
Thr	Cys	Ser	Phe	Arg	Ile	Lys	Glu	Glu	Lys	Asp	Val	Lys	Thr	His	
				1235					1240					1245	
Leu	Val	Pro	Glu	Cys	Gln	Asn	Ser	Leu	His	Leu	Ser	Leu	Gly	Thr	
				1250					1255					1260	
Ser	Thr	Ser	Ala	Thr	Pro	Asp	Gly	Ser	His	Leu	Ala	Val	Asp	Asp	

1265	1270	1275
Leu Lys Asn Ala Glu Glu Ser Lys Leu Gly Pro Asp Ile Gly Ile		
1280	1285	1290
Ser Lys Glu Asp Asp Glu Arg Gln Thr Asp Ser Lys Lys Glu Glu		
1295	1300	1305
Thr Ile Ser Pro Ser Leu Asn Lys Thr Asp Val Ile His Gly Gln		
1310	1315	1320
Asp Lys Ser Asp Val Gln Asn Thr Gln Leu Thr Val Glu Thr Thr		
1325	1330	1335
Asn Ile Glu Gly Thr Ile Ser Tyr Pro Leu Glu Glu Thr Lys Ile		
1340	1345	1350
Thr Arg Tyr Phe Pro Asp Glu Thr Ile Asn Ala Cys Lys Thr Met		
1355	1360	1365
Lys Ser Arg Ser Phe Val Tyr Ser Arg Gly Arg Lys Leu Val Gly		
1370	1375	1380
Gly Val Asn Gln Asp Val Glu Tyr Ser Ser Ile Thr Asp Gln Gln		
1385	1390	1395
Leu Thr Thr Glu Trp Gln Cys Gln Val Gln Lys Ile Thr Arg Ser		
1400	1405	1410
His Ser Thr Asp Ile Pro Tyr Ile Val Ser Glu Ala Ala Val Gln		
1415	1420	1425
Ala Glu Gln Lys Glu Gln Phe Ala Asp Met Gln Asp Glu His His		
1430	1435	1440
Val Ala Glu Ala Ile Pro Arg Ile Pro Arg Leu Ser Leu Thr Ile		
1445	1450	1455
Thr Asp Arg Asn Gly Met Glu Asn Leu Leu Ser Val Lys Pro Asp		
1460	1465	1470
Gln Thr Leu Gly Phe Pro Ser Leu Arg Ser Lys Ser Leu His Gly		
1475	1480	1485
His Pro Arg Asn Val Lys Ser Ile Gln Gly Lys Leu Asp Arg Ser		
1490	1495	1500
Gly His Ala Ser Ser Val Ser Ser Leu Val Ile Val Ser Gly Met		
1505	1510	1515
Thr Ala Glu Glu Lys Lys Val Lys Lys Glu Lys Ala Ser Thr Glu		
1520	1525	1530
Thr Glu Cys		

<210> 40
<211> 462

<212> PRT

<213> Homo sapiens

<400> 40

Met	Ser	Thr	Glu	Lys	Val	Asp	Gln	Lys	Glu	Glu	Ala	Gly	Glu	Lys
1				5					10					15
Glu	Val	Cys	Gly	Asp	Gln	Ile	Lys	Gly	Pro	Asp	Lys	Glu	Glu	Glu
				20					25					30
Pro	Pro	Ala	Ala	Ala	Ser	His	Gly	Gln	Gly	Trp	Arg	Pro	Gly	Gly
				35					40					45
Arg	Ala	Ala	Arg	Asn	Ala	Arg	Pro	Glu	Pro	Gly	Ala	Arg	His	Pro
				50					55					60
Ala	Leu	Pro	Ala	Met	Val	Asn	Asp	Pro	Pro	Val	Pro	Ala	Leu	Leu
				65					70					75
Trp	Ala	Gln	Glu	Val	Gly	Gln	Val	Leu	Ala	Gly	Arg	Ala	Arg	Arg
				80					85					90
Leu	Leu	Leu	Gln	Phe	Gly	Val	Leu	Phe	Cys	Thr	Ile	Leu	Leu	Leu
				95					100					105
Leu	Trp	Val	Ser	Val	Phe	Leu	Tyr	Gly	Ser	Phe	Tyr	Tyr	Ser	Tyr
				110					115					120
Met	Pro	Thr	Val	Ser	His	Leu	Ser	Pro	Val	His	Phe	Tyr	Tyr	Arg
				125					130					135
Thr	Asp	Cys	Asp	Ser	Ser	Thr	Thr	Ser	Leu	Cys	Ser	Phe	Pro	Val
				140					145					150
Ala	Asn	Val	Ser	Leu	Thr	Lys	Gly	Gly	Arg	Asp	Arg	Val	Leu	Met
				155					160					165
Tyr	Gly	Gln	Pro	Tyr	Arg	Val	Thr	Leu	Glu	Leu	Glu	Leu	Pro	Glu
				170					175					180
Ser	Pro	Val	Asn	Gln	Asp	Leu	Gly	Met	Phe	Leu	Val	Thr	Ile	Ser
				185					190					195
Cys	Tyr	Thr	Arg	Gly	Gly	Arg	Ile	Ile	Ser	Thr	Ser	Ser	Arg	Ser
				200					205					210
Val	Met	Leu	His	Tyr	Arg	Ser	Asp	Leu	Leu	Gln	Met	Leu	Asp	Thr
				215					220					225
Leu	Val	Phe	Ser	Ser	Leu	Leu	Leu	Phe	Gly	Phe	Ala	Glu	Gln	Lys
				230					235					240
Gln	Leu	Leu	Glu	Val	Glu	Leu	Tyr	Ala	Asp	Tyr	Arg	Glu	Asn	Ser
				245					250					255
Tyr	Val	Pro	Thr	Thr	Gly	Ala	Ile	Ile	Glu	Ile	His	Ser	Lys	Arg
				260					265					270

Ile	Gln	Leu	Tyr	Gly	Ala	Tyr	Leu	Arg	Ile	His	Ala	His	Phe	Thr	
				275					280					285	
Gly	Leu	Arg	Tyr	Leu	Leu	Tyr	Asn	Phe	Pro	Met	Thr	Cys	Ala	Phe	
				290					295					300	
Ile	Gly	Val	Ala	Ser	Asn	Phe	Thr	Phe	Leu	Ser	Val	Ile	Val	Leu	
				305					310					315	
Phe	Ser	Tyr	Met	Gln	Trp	Val	Trp	Gly	Gly	Ile	Trp	Pro	Arg	His	
				320					325					330	
Arg	Phe	Ser	Leu	Gln	Val	Asn	Ile	Arg	Lys	Arg	Asp	Asn	Ser	Arg	
				335					340					345	
Lys	Glu	Val	Gln	Arg	Arg	Ile	Ser	Ala	His	Gln	Pro	Gly	Pro	Glu	
				350					355					360	
Gly	Gln	Glu	Glu	Ser	Thr	Pro	Gln	Ser	Asp	Val	Thr	Glu	Asp	Gly	
				365					370					375	
Glu	Ser	Pro	Glu	Asp	Pro	Ser	Gly	Thr	Glu	Gly	Gln	Leu	Ser	Glu	
				380					385					390	
Glu	Glu	Lys	Pro	Asp	Gln	Gln	Pro	Leu	Ser	Gly	Glu	Glu	Glu	Leu	
				395					400					405	
Glu	Pro	Glu	Ala	Ser	Asp	Gly	Ser	Gly	Ser	Trp	Glu	Asp	Ala	Ala	
				410					415					420	
Leu	Leu	Thr	Glu	Ala	Asn	Leu	Pro	Ala	Pro	Ala	Pro	Ala	Ser	Ala	
				425					430					435	
Ser	Ala	Pro	Val	Leu	Glu	Thr	Leu	Gly	Ser	Ser	Glu	Pro	Ala	Gly	
				440					445					450	
Gly	Ala	Leu	Arg	Gln	Arg	Pro	Thr	Cys	Ser	Ser	Ser				
				455					460						

<210> 41
 <211> 1015
 <212> PRT
 <213> Homo sapiens

<400> 41
 Met Gly Pro Pro Leu Pro Leu Leu Leu Leu Leu Leu Leu Leu Leu
 1 5 10 15
 Pro Pro Arg Val Leu Pro Ala Ala Pro Ser Ser Val Pro Arg Gly
 20 25 30
 Arg Gln Leu Pro Gly Arg Leu Gly Cys Leu Leu Glu Glu Gly Leu
 35 40 45
 Cys Gly Ala Ser Glu Ala Cys Val Asn Asp Gly Val Phe Gly Arg
 50 55 60
 Cys Gln Lys Val Pro Ala Met Asp Phe Tyr Arg Tyr Glu Val Ser

65										70					75				
Pro	Val	Ala	Leu	Gln	Arg	Leu	Arg	Val	Ala	Leu	Gln	Lys	Leu	Ser					
				80					85					90					
Gly	Thr	Gly	Phe	Thr	Trp	Gln	Asp	Asp	Tyr	Thr	Gln	Tyr	Val	Met					
				95					100					105					
Asp	Gln	Glu	Leu	Ala	Asp	Leu	Pro	Lys	Thr	Tyr	Leu	Arg	Arg	Pro					
				110					115					120					
Glu	Ala	Ser	Ser	Pro	Ala	Arg	Pro	Ser	Lys	His	Ser	Val	Gly	Ser					
				125					130					135					
Glu	Arg	Arg	Tyr	Ser	Arg	Glu	Gly	Gly	Ala	Ala	Leu	Ala	Asn	Ala					
				140					145					150					
Leu	Arg	Arg	His	Leu	Pro	Phe	Leu	Glu	Ala	Leu	Ser	Gln	Ala	Pro					
				155					160					165					
Ala	Ser	Asp	Val	Leu	Ala	Arg	Thr	His	Thr	Ala	Gln	Asp	Arg	Pro					
				170					175					180					
Pro	Ala	Glu	Gly	Asp	Asp	Arg	Phe	Ser	Glu	Ser	Ile	Leu	Thr	Tyr					
				185					190					195					
Val	Ala	His	Thr	Ser	Ala	Leu	Thr	Tyr	Pro	Pro	Gly	Pro	Arg	Thr					
				200					205					210					
Gln	Leu	Arg	Glu	Asp	Leu	Leu	Pro	Arg	Thr	Leu	Gly	Gln	Leu	Gln					
				215					220					225					
Pro	Asp	Glu	Leu	Ser	Pro	Lys	Val	Asp	Ser	Gly	Val	Asp	Arg	His					
				230					235					240					
His	Leu	Met	Ala	Ala	Leu	Ser	Ala	Tyr	Ala	Ala	Gln	Arg	Pro	Pro					
				245					250					255					
Ala	Pro	Pro	Gly	Glu	Gly	Ser	Leu	Glu	Pro	Gln	Tyr	Leu	Leu	Arg					
				260					265					270					
Ala	Pro	Ser	Arg	Met	Pro	Arg	Pro	Leu	Leu	Ala	Pro	Ala	Ala	Pro					
				275					280					285					
Gln	Lys	Trp	Pro	Ser	Pro	Leu	Gly	Asp	Ser	Glu	Asp	Pro	Ser	Ser					
				290					295					300					
Thr	Gly	Asp	Gly	Ala	Arg	Ile	His	Thr	Leu	Leu	Lys	Asp	Leu	Gln					
				305					310					315					
Arg	Gln	Pro	Ala	Glu	Val	Arg	Gly	Leu	Ser	Gly	Leu	Glu	Leu	Asp					
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Gly	Met	Ala	Glu	Leu	Met	Ala	Gly	Leu	Met	Gln	Gly	Val	Asp	His					
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Gly	Val	Ala	Arg	Gly	Ser	Pro	Gly	Arg	Ala	Ala	Leu	Gly	Glu	Ser					
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Gly	Glu	Gln	Ala	Asp	Gly	Pro	Lys	Ala	Thr	Leu	Arg	Gly	Asp	Ser	
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Phe	Pro	Asp	Asp	Gly	Val	Gln	Asp	Asp	Asp	Asp	Arg	Leu	Tyr	Gln	
				380					385					390	
Glu	Val	His	Arg	Leu	Ser	Ala	Thr	Leu	Gly	Gly	Leu	Leu	Gln	Asp	
				395					400					405	
His	Gly	Ser	Arg	Leu	Leu	Pro	Gly	Ala	Leu	Pro	Phe	Ala	Arg	Pro	
				410					415					420	
Leu	Asp	Met	Glu	Arg	Lys	Lys	Ser	Glu	His	Pro	Glu	Ser	Ser	Leu	
				425					430					435	
Ser	Ser	Glu	Glu	Glu	Thr	Ala	Gly	Val	Glu	Asn	Val	Lys	Ser	Gln	
				440					445					450	
Thr	Tyr	Ser	Lys	Asp	Leu	Leu	Gly	Gln	Gln	Pro	His	Ser	Glu	Pro	
				455					460					465	
Gly	Ala	Ala	Ala	Phe	Gly	Glu	Leu	Gln	Asn	Gln	Met	Pro	Gly	Pro	
				470					475					480	
Ser	Lys	Glu	Glu	Gln	Ser	Leu	Pro	Ala	Gly	Ala	Gln	Glu	Ala	Leu	
				485					490					495	
Ser	Asp	Gly	Leu	Gln	Leu	Glu	Val	Gln	Pro	Ser	Glu	Glu	Glu	Ala	
				500					505					510	
Arg	Gly	Tyr	Ile	Val	Thr	Asp	Arg	Asp	Pro	Leu	Arg	Pro	Glu	Glu	
				515					520					525	
Gly	Arg	Arg	Leu	Val	Glu	Asp	Val	Ala	Arg	Leu	Leu	Gln	Val	Pro	
				530					535					540	
Ser	Ser	Ala	Phe	Ala	Asp	Val	Glu	Val	Leu	Gly	Pro	Ala	Val	Thr	
				545					550					555	
Phe	Lys	Val	Ser	Ala	Asn	Val	Gln	Asn	Val	Thr	Thr	Glu	Asp	Val	
				560					565					570	
Glu	Lys	Ala	Thr	Val	Asp	Asn	Lys	Asp	Lys	Leu	Glu	Glu	Thr	Ser	
				575					580					585	
Gly	Leu	Lys	Ile	Leu	Gln	Thr	Gly	Val	Gly	Ser	Lys	Ser	Lys	Leu	
				590					595					600	
Lys	Phe	Leu	Pro	Pro	Gln	Ala	Glu	Gln	Glu	Asp	Ser	Thr	Lys	Phe	
				605					610					615	
Ile	Ala	Leu	Thr	Leu	Val	Ser	Leu	Ala	Cys	Ile	Leu	Gly	Val	Leu	
				620					625					630	
Leu	Ala	Ser	Gly	Leu	Ile	Tyr	Cys	Leu	Arg	His	Ser	Ser	Gln	His	
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Arg	Leu	Lys	Glu	Lys	Leu	Ser	Gly	Leu	Gly	Gly	Asp	Pro	Gly	Ala	

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Asp	Ala	Thr	Ala	Ala	Tyr	Gln	Glu	Leu	Cys	Arg	Gln	Arg	Met	Ala	
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Thr	Arg	Pro	Pro	Asp	Arg	Pro	Glu	Gly	Pro	His	Thr	Ser	Arg	Ile	
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Ser	Ser	Val	Ser	Ser	Gln	Phe	Ser	Asp	Gly	Pro	Ile	Pro	Ser	Pro	
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Ser	Ala	Arg	Ser	Ser	Ala	Ser	Ser	Trp	Ser	Glu	Glu	Pro	Val	Gln	
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Ser	Asn	Met	Asp	Ile	Ser	Thr	Gly	His	Met	Ile	Leu	Ser	Tyr	Met	
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Glu	Asp	His	Leu	Lys	Asn	Lys	Asn	Arg	Leu	Glu	Lys	Glu	Trp	Glu	
				740					745					750	
Ala	Leu	Cys	Ala	Tyr	Gln	Ala	Glu	Pro	Asn	Ser	Ser	Phe	Val	Ala	
				755					760					765	
Gln	Arg	Glu	Glu	Asn	Val	Pro	Lys	Asn	Arg	Ser	Leu	Ala	Val	Leu	
				770					775					780	
Thr	Tyr	Asp	His	Ser	Arg	Val	Leu	Leu	Lys	Ala	Glu	Asn	Ser	His	
				785					790					795	
Ser	His	Ser	Asp	Tyr	Ile	Asn	Ala	Ser	Pro	Ile	Met	Asp	His	Asp	
				800					805					810	
Pro	Arg	Asn	Pro	Ala	Tyr	Ile	Ala	Thr	Gln	Gly	Pro	Leu	Pro	Ala	
				815					820					825	
Thr	Val	Ala	Asp	Phe	Trp	Gln	Met	Val	Trp	Glu	Ser	Gly	Cys	Val	
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Val	Ile	Val	Met	Leu	Thr	Pro	Leu	Ala	Glu	Asn	Gly	Val	Arg	Gln	
				845					850					855	
Cys	Tyr	His	Tyr	Trp	Pro	Asp	Glu	Gly	Ser	Asn	Leu	Tyr	His	Ile	
				860					865					870	
Tyr	Glu	Val	Asn	Leu	Val	Ser	Glu	His	Ile	Trp	Cys	Glu	Asp	Phe	
				875					880					885	
Leu	Val	Arg	Ser	Phe	Tyr	Leu	Lys	Asn	Leu	Gln	Thr	Asn	Glu	Thr	
				890					895					900	
Arg	Thr	Val	Thr	Gln	Phe	His	Phe	Leu	Ser	Trp	Tyr	Asp	Arg	Gly	
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Val	Pro	Ser	Ser	Ser	Arg	Ser	Leu	Leu	Asp	Phe	Arg	Arg	Lys	Val	
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Asn	Lys	Cys	Tyr	Arg	Gly	Arg	Ser	Cys	Pro	Ile	Ile	Val	His	Cys	
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Ser	Asp	Gly	Ala	Gly	Arg	Ser	Gly	Thr	Tyr	Val	Leu	Ile	Asp	Met
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Val	Leu	Asn	Lys	Met	Ala	Lys	Gly	Ala	Lys	Glu	Ile	Asp	Ile	Ala
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Ala	Thr	Leu	Glu	His	Leu	Arg	Asp	Gln	Arg	Pro	Gly	Met	Val	Gln
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Thr	Lys	Glu	Gln	Phe	Glu	Phe	Ala	Leu	Thr	Ala	Val	Ala	Glu	Glu
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Val	Leu	Ala	Cys	Gly	Leu	Ser	Arg	Ile	Trp	Gly	Glu	Glu	Arg	Gly
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Phe	Pro	Pro	Asp	Arg	Ala	Thr	Pro	Leu	Leu	Gln	Thr	Ala	Glu	Ile
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Met	Thr	Pro	Pro	Thr	Lys	Thr	Leu	Trp	Pro	Lys	Gly	Ser	Asn	Ala
				50					55					60
Ser	Leu	Ala	Arg	Ser	Leu	Ala	Pro	Ala	Glu	Val	Pro	Lys	Gly	Asp
				65					70					75
Arg	Thr	Ala	Gly	Ser	Pro	Pro	Arg	Thr	Ile	Ser	Pro	Pro	Pro	Cys
				80					85					90
Gln	Gly	Pro	Ile	Glu	Ile	Lys	Glu	Thr	Phe	Lys	Tyr	Ile	Asn	Thr
				95					100					105
Val	Val	Ser	Cys	Leu	Val	Phe	Val	Leu	Gly	Ile	Ile	Gly	Asn	Ser
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Thr	Leu	Leu	Arg	Ile	Ile	Tyr	Lys	Asn	Lys	Cys	Met	Arg	Asn	Gly
				125					130					135
Pro	Asn	Ile	Leu	Ile	Ala	Ser	Leu	Ala	Leu	Gly	Asp	Leu	Leu	His
				140					145					150
Ile	Val	Ile	Asp	Ile	Pro	Ile	Asn	Val	Tyr	Lys	Leu	Leu	Ala	Glu
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Asp	Trp	Pro	Phe	Gly	Ala	Glu	Met	Cys	Lys	Leu	Val	Pro	Phe	Ile
				170					175					180
Gln	Lys	Ala	Ser	Val	Gly	Ile	Thr	Val	Leu	Ser	Leu	Cys	Ala	Leu

185										190					195				
Ser	Ile	Asp	Arg	Tyr	Arg	Ala	Val	Ala	Ser	Trp	Ser	Arg	Ile	Lys					
				200					205					210					
Gly	Ile	Gly	Val	Pro	Lys	Trp	Thr	Ala	Val	Glu	Ile	Val	Leu	Ile					
				215					220					225					
Trp	Val	Val	Ser	Val	Val	Leu	Ala	Val	Pro	Glu	Ala	Ile	Gly	Phe					
				230					235					240					
Asp	Ile	Ile	Thr	Met	Asp	Tyr	Lys	Gly	Ser	Tyr	Leu	Arg	Ile	Cys					
				245					250					255					
Leu	Leu	His	Pro	Val	Gln	Lys	Thr	Ala	Phe	Met	Gln	Phe	Tyr	Lys					
				260					265					270					
Thr	Ala	Lys	Asp	Trp	Trp	Leu	Phe	Ser	Phe	Tyr	Phe	Cys	Leu	Pro					
				275					280					285					
Leu	Ala	Ile	Thr	Ala	Phe	Phe	Tyr	Thr	Leu	Met	Thr	Cys	Glu	Met					
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Leu	Arg	Lys	Lys	Ser	Gly	Met	Gln	Ile	Ala	Leu	Asn	Asp	His	Leu					
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Lys	Gln	Arg	Arg	Glu	Val	Ala	Lys	Thr	Val	Phe	Cys	Leu	Val	Leu					
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Val	Phe	Ala	Leu	Cys	Trp	Leu	Pro	Leu	His	Leu	Ser	Arg	Ile	Leu					
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Lys	Leu	Thr	Leu	Tyr	Asn	Gln	Asn	Asp	Pro	Asn	Arg	Cys	Glu	Leu					
				350					355					360					
Leu	Ser	Phe	Leu	Leu	Val	Leu	Asp	Tyr	Ile	Gly	Ile	Asn	Met	Ala					
				365					370					375					
Ser	Leu	Asn	Ser	Cys	Ile	Asn	Pro	Ile	Ala	Leu	Tyr	Leu	Val	Ser					
				380					385					390					
Lys	Arg	Phe	Lys	Asn	Cys	Phe	Lys	Ser	Cys	Leu	Cys	Cys	Trp	Cys					
				395					400					405					
Gln	Ser	Phe	Glu	Glu	Lys	Gln	Ser	Leu	Glu	Glu	Lys	Gln	Ser	Cys					
				410					415					420					
Leu	Lys	Phe	Lys	Ala	Asn	Asp	His	Gly	Tyr	Asp	Asn	Phe	Arg	Ser					
				425					430					435					
Ser	Asn	Lys	Tyr	Ser	Ser	Ser													
				440															